CATALOGUE
OF THE
MARINE ALGÆ OF THE WEST INDIAN REGION

GEORGE MURRAY, F.L.S.

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MARINE ALGÆ OF THE WEST INDIAN REGION.

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BY

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CATALOGUE OF THE MARINE ALGÆ OF THE WEST INDIAN REGION.

By George Murray, F.L.S.

The region dealt with in the following paper includes the whole West Indian group of Islands, and the mainland coast from Venezuela round the Caribbean Sea and Gulf of Mexico to Florida. I have not only included the Bahamas, which obviously belong to the same group as the other islands, but also Bermuda, for the reason that it is a coral island,—the most northern one,—and its marine flora, so far as it is known, has a large proportion of West Indian forms mixed with those of the temperate Atlantic. As to the mainland, I have thought it right not to take forms farther north than Florida, since the coral practically ends there, and I am upheld in this opinion by Prof. Farlow and Mr. Cosmo Melvill. Florida is the only spot on the mainland known to us to be rich in marine Algæ. These have been described by Harvey ('Nereis Boreali-Americana'), by Mr. Cosmo Melvill in the 'Journal of Botany' (1875), by Prof. Farlow in his 'List of the Marine Algæ of the United States' (Fish Commission Report, 1876), and in the 'Algæ Exsiccatæ Amer. Bor.' The rest of the mainland appears to be mostly sandy wastes and the like; though the coasts of Honduras, the Mosquito coast, that of Colombia and Venezuela may yet yield good collecting-grounds to enterprising travellers. A few forms from Mexico and from La Guayra (Venezuela), collected by Liebman, are all known to me beyond Florida.

From the islands we know a great variety of forms. First of all comes Guadeloupe, which leaves even the famous Floridan keys far behind. MM. Mazé and Schramm, in their 'Essai de classification des Algues de la Guadeloupe,' 1870–77, enumerate 811 marine Algæ (with 129 more from fresh-water and mineral springs) from that island alone! In naming them (and the large number of new forms among them) these accomplished workers had the help of the brothers Crouan, and the result is a model of what such work should be. Their exploration of Guadeloupe alone has done more for our knowledge of West Indian Algæ than all the other workers put together, as the following list abundantly shows. Fortunately the British Museum possesses a magnificent set of these Algæ complete, but for one or two unimportant forms, and I have been able to use it in the comparison of Algæ from the other localities. Of the Algæ of Barbadoes a good deal is known. Prof. Dickie published a list of them in the Linnean Society's Journal, vol. xiv., founded on specimens collected by the then Governor Sir Rawson Rawson and Miss Watts,—and on others in the Gray Herbarium,—all of which are now also in the British Museum. There are also smaller sets from

Martinique (Duperrey), Santa Cruz, Cuba (Ramon de la Sagra, Wright—see Farlow in 'American Naturalist,' vol. v., p. 201, and other collectors), Jamaica (Sir Hans Sloane and Chitty), and Bermuda (Kemp in 'Canadian Naturalist,' vol. ii., p. 145; Rein in 'Bericht ü. d. Senckenberg. Gesellsch.,' 1872–73, p. 151; and Moseley, who collected the 'Challenger' Algæ described by Prof. Dickie in the Linnean Society's Journal, vol. xiv.). I also include those which I collected at Grenada in 1886, when naturalist to the Solar Eclipse Expedition. There are remarkably few *Florideæ* among them, mainly owing, I take it, to the presence of much fresh-water from Orinoco floods (see Governor Rawson, 'Nature,' Dec. 19, 1872, and Jan. 2, 1873; and Dickie on the Barbadoes Algæ, *loc. cit.*). In Guadeloupe, for example, the *Florideæ* outnumber the green Algæ, as is to be expected, but in Grenada the proportion was very markedly the other way, so far as a six weeks' examination enables me to say. I may note here that I actually obtained in a tow-net, south of Grenada, and outside, in the stream of the equatorial current, specimens of *Spirogyra tropica*, a fresh-water Alga from the Orinoco probably, but known anyhow from the Amazons.

The localities are cited in the order determined by the direction of the equatorial current and the Gulf Stream. The southern forms come first, and after them the others down-stream, as it were, to Bermuda. At the end I shall deal fully with the relationships of this marine flora. Meanwhile I must remark that this list, large as it is, may be extended. Private and other collections doubtless exist containing forms beyond those I have cited, and the present enumeration will have served its purpose if it lead to its own extension.

I. FLORIDEÆ.

Ceramieæ.

Callithamnion pallens Zan. Guadeloupe, *Mazé*!
Geographical Distribution. Mediterranean.

C. byssaceum Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.

C. Turneri Ag. Florida, *Harvey*.
Geogr. Distr. Atlantic, Mediterranean, Tasmania.

C. luxurians J. Ag. Florida, *Melvill*! Bermuda, *Kemp*.
Geogr. Distr. N. Atlantic, North Sea.

C. floccosum Müll. Grenada, *Murray*! Bermuda, *Kemp*.
Geogr. Distr. Atlantic and North Sea. Var. pacificum Harv. at Vancouver.

C. plumula Ellis. Bermuda, *Kemp*.
Geogr. Distr. Atlantic and Mediterranean, Tasmania.

C. polyspermum Ag. Florida, *Harvey*.
Geogr. Distr. N. Atlantic (Europe and America). Pacific (Vancouver).

C. ellipticum Mont., var. major Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Canary Islands.

C. pedunculatum Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Brazil.

C. GORGONEUM Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Cape Verde.
C. APICULATUM Crn. Guadeloupe, *Mazé*!
C. L'HERMINIERI Crn. Guadeloupe, *Mazé*!
C. CORYNOSPOROIDES Crn. Guadeloupe, *Mazé*!
C. HYPNEÆ Crn. Guadeloupe, *Mazé*!
C. AMENTACEUM Crn. Guadeloupe, *Mazé*!
C. CORNICULIFRUCTUM Crn. Guadeloupe, *Mazé*!
C. BEANII Crn. Guadeloupe, *Mazé*!
C. INVESTIENS Crn. Guadeloupe, *Mazé*!
C. PELLUCIDUM Farlow. Florida, *Farlow*!
GRIFFITHSIA SCHOUSBŒI Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean, Atlantic (S. Europe & N. Africa).
G. CORALLINA Ag. Florida, *Harvey*.
Geogr. Distr. Atlantic (Europe) and Mediterranean.
G. GLOBIFERA J. Ag. Guadeloupe, *Mazé*! ? Florida, *Harvey*.
Geogr. Distr. Atlantic (N. America).
G. OPUNTIOIDES J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
G. SETACEA Ag., var. Grenada, *Murray*! Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Europe) and Mediterranean.
CROUANIA ATTENUATA J. Ag. Guadeloupe, *Mazé*! Florida, *Harvey*, *Melvill*!
Geogr. Distr. Atlantic (Europe & America) & Mediterranean.
C. AUSTRALIS J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Australia and Tasmania.
HALOPLEGMA DUPERREYI Mont. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Martinique, *Duperrey*.
Geogr. Distr. (Cape of Good Hope ?) Pacific.
CERAMIUM BYSSOIDEUM Harv. Florida, *Harvey*, *Melvill*!
C. SUBTILE J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Vera Cruz, *Liebman*.
C. TENUISSIMUM Lyngb. Guadeloupe, *Mazé*! = *C. arachnoideum* var. *patentissimum* Harv. = also *C. nodiferum* Crn. ? Florida, *Harvey*, *Melvill*!
Geogr. Distr. Atlantic (Europe & N. America) & Mediterranean.
C. GRACILLIMUM J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic and Mediterranean, Australia ?
C. FASTIGIATUM Harv. Florida, *Melvill*! Bermuda, *Kemp*!
Geogr. Distr. N. Atlantic and Mediterranean.
C. DESLONGCHAMPII Chauv., var. VIMINARIUM Melv. MS. Florida, *Melvill*!
Geogr. Distr. Atlantic (Europe).
C. STRICTUM Grev. et Harv. Guadeloupe, *Mazé*!
Geogr. Distr. North and South Atlantic, Mediterranean, Black Sea.
C. DIAPHANUM Roth. Florida, *Harvey*, *Melvill*!
Geogr. Distr. Atlantic (Europe), Cape of Good Hope, Australia ?
C. CORNICULATUM Mont. Guadeloupe, *Limminghe*, *Mazé*!
C. RUBRUM Ag. Grenada, *Murray*! Bermuda, *Kemp*.
Geogr. Distr. Throughout all seas.

C. NITENS J. Ag. Guadeloupe, *Mazé*! Florida, *Harvey*! *Melvill*! Bermuda, *Rein*.

C. MINIATUM Suhr. Guadeloupe? *Mazé*.
Geogr. Distr. Pacific, Australia.

C. STRICTOIDES Crn. Guadeloupe, *Mazé*!

C. CORNIGERUM Crn. Guadeloupe, *Mazé*!

C. CHILENSE Crn. Guadeloupe, *Mazé*!

C. LANCIFERUM Kütz. Danish West Indian Islands, *Hohenack.*! Meeralgen, 539.

CENTROCERAS CLAVULATUM Ag. Grenada, *Murray*! Guadeloupe, *Mazé*! St. Thomas, *A. R. Young*! Cuba, *Hb. Montagne*! Florida, *Harvey*! *Melvill*! Bermuda, *Rein*, '*Challenger*'!

Var. CRYPTACANTHUM Crn. Guadeloupe, *Mazé*! Danish West Indian Islands, *Hohenack.*! Meeralgen, 441 & 442. Bermuda, '*Challenger*'!

Var. LEPTACANTHUM Crn. Guadeloupe, *Mazé*! Danish West Indian Islands, *Hohenack.*! Meeralgen, 443.

Var. HYALACANTHUM Crn. Guadeloupe, *Mazé*! Danish West Indian Islands, *Hohenack.*! Meeralgen, 537.

Var. MICRANTHUM Kütz. There is a specimen in Herb. Mus. Brit. on which is written, "Ipse, Ins. Ind. occid. Dan." I do not recognise the identity of "Ipse" from the handwriting.

Var. OXYACANTHUM Crn. Guadeloupe, *Mazé*!

Var. BRACHYACANTHUM Crn. Guadeloupe, *Mazé*!

Var. CRISPULUM Mont. Florida, *Harvey*, *Melvill*!
Geogr. Distr. Throughout all tropical and subtropical seas.

CRYPTONEMIACEÆ.

GLOIOSIPHONIA CAPILLARIS Carm. Bermuda, *Kemp*.
Geogr. Distr. Atlantic (Europe) and North Sea.

LYGISTES VERMICULARIS J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Spain).

SCHIZYMENIA MARGINATA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.

NEMASTOMA MULTIFIDA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Tropical Atlantic.

N. JARDINI J. Ag., var. ANTILLARUM Crn. Guadeloupe, *Mazé*.

GYMNOPHLŒA CANARIENSIS Kütz. Guadeloupe, *Mazé*!

SCHIMMELMANNIA BOLLEI Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Canary Islands.

HALYMENIA DICHOTOMA J. Ag. Guadeloupe, *Mazé*! Bermuda, '*Challenger*'!
Geogr. Distr. Mediterranean and neighbouring Atlantic.

H. DECIPIENS J. Ag. Florida, *Melvill*! *Hooper*! in Farlow, Anderson & Eaton Alg. Exsicc. 80.
Geogr. Distr. Spain.

H. FLORESIA Ag. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Florida, *Harvey*, *Melvill*!
Geogr. Distr. Atlantic (Europe, Africa, and America), Mediterranean, Red Sea, Australia.

H. LIGULATA Woodw. Barbadoes, *Dickie*! Florida, *Harvey*.
Geogr. Distr. Atlantic (Europe).
H. RAMOSISSIMA Suhr? Guadeloupe, *Mazé*!
H. PENNATA Crn. Guadeloupe, *Mazé*!
GRATELOUPIA DICHOTOMA J. Ag. Guadeloupe, *Mazé*! ('West Indian,' *fide* J. G. Agardh).
Geogr. Distr. Atlantic (Europe) and Mediterranean.
G. FILICINA Ag. Grenada, *Murray*! Guadeloupe, *Mazé*! St. Thomas, *A. R. Young*! Florida, *Harvey*.
Var. CONGESTA Crn. Guadeloupe, *Mazé*!
Var. FILIFORMIS Crn. Guadeloupe, *Mazé*! *Hohenack.*! Meeralgen 380.
Var. ELONGATA Kütz. Guadeloupe, *Mazé*!
Var. BIPINNATA Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (as far as the Cape of Good Hope), Mediterranean, Indian Ocean.
G. PROLONGATA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Pacific (Mexico).
G. GIBBESII Harv. Guadeloupe, *Mazé*!
G. CUNEIFOLIA J. Ag. La Guayra (Venezuela), *Binder*. Guadeloupe, *Mazé*!
G. CUTLERIÆ Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Chili.
G.? AUCKLANDICA Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Antarctic Sea.
G. LANCIFERA Mont. Guadeloupe, *Mazé*!
G. LANCEOLA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (N. Africa).
G. FURCATA Crn. Guadeloupe, *Mazé*!
G. SPINULOSA Crn. Guadeloupe, *Mazé*!
G. SEMIBIPINNATA Crn. Guadeloupe, *Mazé*!
G. SUBVERTICILLATA Crn. Guadeloupe, *Mazé*!
CRYPTONEMIA CRENULATA J. Ag. Florida, *Harvey*! *Melvill*! *Hooper*! in Farlow, Anderson & Eaton Alg. Exsicc. Am. Bor. 23. Bermuda, *Rein.*
Geogr. Distr. Atlantic (N. and S. America).
C. LACTUCA J. Ag. Guadeloupe, *Mazé.*
Geogr. Distr. Atlantic (Spain).
C. LUXURIANS J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé.*
Geogr. Distr. Brazil.

GIGARTINEÆ.

CHONDRUS CRISPUS Lyngb. Jamaica? (Hb. Shuttleworth!) Bermuda, *Kemp*!
Geogr. Distr. N. Atlantic.
IRIDÆA LITTORALIS Crn. Guadeloupe, *Mazé*!
GIGARTINA ACICULARIS Lam. Guadeloupe, *Mazé*! Havana, *Melvill*!
Geogr. Distr. Atlantic (Europe) & Mediterranean.
G. TEEDII Lam. Bermuda, *Kemp.*
Geogr. Distr. Atlantic (Europe) and Mediterranean.
AHNFELTIA DURVILLÆI J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Tropical Pacific.

A.? PINNULATA Harv. Florida, *Harvey*.
GYMNOGONGRUS DENSUS J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Indian Ocean.
G. PYGMÆUS J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Indian Ocean.
G. FURCELLATUS J. Ag. Guadeloupe, *Mazé*! Jamaica, *Wright*!
Var. PATENS J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Peru.
G. TENUIS J. Ag. Guadeloupe, *Mazé*! "On the shores of the Mexican Republic," *Liebman*. Agardh gives it as Gulf of Mexico.
Var. ANGUSTA J. Ag. Guadeloupe, *Mazé*!
G. CRENULATUS J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Spain).
G. CAPENSIS J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
G. LINEARIS J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Pacific (S. America).
G. DILATATUS J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
STENOGRAMMA INTERRUPTA Mont. Florida, *Harvey*.
Geogr. Distr. Warmer Atlantic (Europe and America), Pacific (California, Corea), N. Zealand, Tasmania.
PHYLLOPHORA BRODIÆI J. Ag. Jamaica, *Chitty*!
Geogr. Distr. N. Atlantic.
KALLYMENIA RENIFORMIS J. Ag.? Bermuda, '*Challenger*'!
Geogr. Distr. Atlantic (Europe).
K. PAPULOSA Mont. Guadeloupe, *Mazé*!
K. LIMMINGHII Mont. Guadeloupe, *Limminghe*, *Mazé*!
CALLOPHYLLIS DISCIGERA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
C. LACINIATA J. Ag. Bermuda, *Kemp*.
Geogr. Distr. Atlantic and North Sea (? Pacific).
CYSTOCLONIUM DIFFICILE J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Brazil.

SPYRIDIEÆ.

SPYRIDIA FILAMENTOSA Harv. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! St. Thomas, *A. R. Young*! Jamaica, *Chitty*! Florida, *Harvey*! *Melvill*! Bermuda, *Rein*!
Var. FRIABILIS J. Ag. Guadeloupe, *Mazé*!
Var. VILLOSA Crn. Guadeloupe, *Mazé*!
Var. CUSPIDATA Crn. Guadeloupe, *Mazé*!
Var. REFRACTA Harv. Florida, *Harvey*? *Melvill*!
Geogr. Distr. Throughout tropical and subtropical seas.
S. SPINELLA Sond. Guadeloupe, *Mazé*!
Geogr. Distr. Australia.
S. ACULEATA J. Ag. Guadeloupe, *Mazé*! Yucatan, *Schott*! Florida, *Harvey*! *Melvill*! Bermuda, *Kemp*!
Geogr. Distr. Atlantic (Spain), Mediterranean, Red Sea. (Agardh gives it as West Indian.)

S. INSIGNIS J. Ag. Guadeloupe, *Mazé* !
Geogr. Distr. Indian Ocean.
S. CLAVATA Kütz. Guadeloupe, *Mazé* ! (= *S. Montagneana*, Kütz).
Geogr. Distr. Senegambia.

ARESCHOUGIEÆ.

S. COMPLANATA J. Ag. Guadeloupe, *Mazé* ! (Agardh gives it as West Indian).
Geogr. Distr. Brazil.
RISSOELLA DENTICULATA Mont. Barbadoes, *Dickie* !
Geogr. Distr. Peru.

CHAMPIEÆ.

CHYLOCLADIA ROSEA Harv. Bermuda, *Kemp*.
Geogr. Distr. Atlantic (Europe and N. America).
C. RIGENS J. Ag. Guadeloupe, *Mazé* !
Geogr. Distr. Warmer Atlantic and Western Pacific.
C. MUELLERI Harv. ? Guadeloupe, *Mazé* !
Var. CACTOIDES Crn. Guadeloupe, *Mazé*.
Geogr. Distr. Australia.
C. SALICORNIA Crn. Guadeloupe, *Mazé* !
C. SALICORNOIDES Harv. Florida, *Harvey*, *Melvill* !
CHAMPIA PARVULA Harv. Guadeloupe, *Mazé* ! Florida, *Harvey*, *Melvill* !
Geogr. Distr. Atlantic (Europe and America), Mediterranean (Pacific ? Australia ?).

RHODYMENIACEÆ.

HYMENOCLADIA DIVARICATA Harv., var. TROPICA Crn. Guadeloupe, *Mazé* !
Geogr. Distr. Australia.
CHRYSYMENIA PLANIFRONS Melv. in J. G. Agardh. Spec. gen. et ord. Alg. Florida, *Melvill* ! Mr. Melvill in his list in 'Journ. Bot.' gives this as *C. Agardhii* Harv., var. *planifrons* Melv., but the name is subsequently cited as above by Agardh, to whom he sent specimens, and by Mr. Melvill in his own herbarium.
C. AGARDHII Harv. Florida, *Harvey*, *Melvill* ! Bermuda, '*Challenger*' !
C. HALYMENIOIDES Harv. Florida, *Harvey* ! *Melvill* ! Bermuda, *Kemp*, '*Challenger*' !
C. UVARIA J. Ag. Grenada, *Murray* ! Barbadoes, *Dickie* ! Guadeloupe, *Mazé* ! Florida, *Harvey* ! *Melvill* ! Bermuda, *Kemp*, *Rein*, *Farlow* ! in Alg. Exsicc. Am. Bor., 150.
Geogr. Distr. Atlantic (Europe and America), Australia.
C. OBOVATA Sond. Guadeloupe, *Mazé* !
Geogr. Distr. Australia.
C. ENTEROMORPHA Harv. Florida, *Harvey*, *Melvill* !
C. ? FURCATA Crn. Guadeloupe, *Mazé* !
C. DICHOTOMO-FLABELLATA Crn. Guadeloupe, *Mazé* !
C. CHYLOCLADIOIDES Crn. Guadeloupe, *Mazé* !

C. SUBVERTICILLATA Crn. Guadeloupe, *Mazé*!
C. TENERA Liebm. Guadeloupe, *Mazé*!
CORDYLECLADIA IRREGULARIS Harv. Florida, *Harvey*, *Hooper*! in Farlow, Anderson and Eaton's Alg. Exsicc. Am. Bor., 18.
RHODYMENIA PALMATA Grev. Bermuda, *Kemp*.
Geogr. Distr. N. Atlantic.
R. FLABELLIFOLIA Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Pacific (S. America).
R. MAMILLARIS Mont. Guadeloupe, *Mazé*! Martinique, *Duperrey*!
R. SUBDENTATA Crn. Guadeloupe, *Mazé*!
Although I take no note of imperfect specimens in this list, I may observe that there is an imperfect specimen from Jamaica, *Chitty*! in Herb. Mus. Brit., of a *Rhodymenia*, which certainly is none of the above.
PLOCAMIUM COCCINEUM J. Ag. ? Jamaica, *Chitty*!
Geogr. Distr. N. Atlantic and N. Pacific. (Southern Seas form probably distinct).
OCHTODES FILIFORMIS J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Martinique and St. Barthelemy *fide* Agardh.

SQUAMARIEÆ.

PEYSSONNELIA DUBYI Crn. Grenada, *Murray*! Guadeloupe, *Mazé*! Florida, *Harvey*, *Melvill*! Bermuda, '*Challenger*'!
Geogr. Distr. Atlantic (Europe).

PORPHYRACEÆ.

BANGIA LUTEA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
B. ATROPURPUREA Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Europe & America), Pacific (California).
B. ELEGANS Chauv. Guadeloupe, *Mazé*!
B. DUMONTIOIDES Crn. Guadeloupe, *Mazé*!
B. GRATELOUPICOLA Crn. Guadeloupe, *Mazé*!
PORPHYRA LACINIATA Ag. Bermuda, *Kemp*.
Geogr Distr. Temperate Atlantic.

SPHÆROCOCCOIDEÆ.

CORALLOPSIS SAGRÆANA Mont. Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*.
GRACILARIA CONFERVOIDES Grev. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Jamaica, *Chitty*! Florida, *Harvey*! Bermuda, *Kemp*, '*Challenger*'!
Geogr. Distr. Throughout all seas.
G. ARMATA J. Ag. Grenada, *Murray*! Guadeloupe, *Mazé*! Florida, *Harvey*. Bermuda, *Kemp*, *Rein*.
Var. GRACILIS Crn. Guadeloupe, *Mazé*!
Forma OCEANICA Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.

G. FEROX J. Ag. Guadeloupe, *Mazé*! (Martinique, *Duperrey?*) Bermuda, '*Challenger*'!

G. DAMÆCORNIS J. Ag. Barbadoes, *Dickie*!

Forma MINOR Crn. Guadeloupe, *Mazé*!

Geogr. Distr. Atlantic (N. America, but only the warmer region).

G. USNEOIDES J. Ag. Guadeloupe, *Mazé*! Agardh gives it as West Indian.

G. BLODGETTII Harv. Florida, *Harvey*.

G. COMPRESSA Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Vera Cruz (*Kützing in Harvey*). Florida (*Melvill*!).

Geogr. Distr. Warmer Atlantic and Mediterranean.

G. SPINESCENS J. Ag. Guadeloupe, *Mazé*!

Geogr. Distr. Pacific (New Caledonia), Tasmania.

G. SECUNDATA Harv. Guadeloupe, *Mazé*.

Geogr. Distr. Australia.

G. DURA J. Ag. Guadeloupe, *Mazé*!

Geogr. Distr. Warmer Atlantic (America and Europe), Mediterranean, Indian Ocean.

G. CAUDATA J. Ag. Guadeloupe, *Mazé*! Gulf of Mexico (*Agardh in Harvey*).

G. CORNEA J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*.

Geogr. Distr. Brazil.

G. POITEI Lam. Grenada, *Murray*! Guadeloupe, *Mazé*! Florida, *Harvey*, *Melvill*! Bermuda, '*Challenger*'!

G. WRIGHTII J. Ag.? Guadeloupe, *Mazé*! Agardh possesses specimens "ex pluribus insulis Indiæ occidentalis."

Geogr. Distr. Indian Ocean, Red Sea.

G. MULTIPARTITA J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Jamaica, *Chitty*! Cuba, *Hb. Montagne*! Bermuda, *Kemp*.

Geogr. Distr. Warmer Atlantic (Europe and America), Red Sea, N. Zealand.

G. DENTATA J. Ag. Guadeloupe, *Mazé*! Agardh gives it as West Indian.

Geogr. Distr. Senegambia.

G. CERVICORNIS J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Gulf of Mexico (*fide Agardh*). Bermuda '*Challenger*'!

G. DIVARICATA Harv. Guadeloupe, *Mazé*! Florida, *Harvey*! Bermuda, *Kemp*!

G. CHONDRIOIDES Crn. Guadeloupe, *Mazé*!

Geogr. Distr. Brazil.

G. PROLIFICA Crn. Guadeloupe, *Mazé*!

G. ARCUATA Zan. Guadeloupe, *Mazé*!

Geogr. Distr. Red Sea.

G.? TUBERCULOSA Hampe. Guadeloupe, *Mazé*!

Geogr. Distr. Peru.

G. OBTUSA Grev. Guadeloupe, *Mazé*!

Geogr. Distr. Indian Ocean.

G. DOMINGENSIS Sond. Barbadoes, *Dickie*! St. Domingo, *fide Dickie*.

G. ACANTHOCOCCOIDES Crn. Guadeloupe, *Mazé*!

G. APICULATA Crn. Guadeloupe, *Mazé*!
G. BICUSPIDATA Crn. Guadeloupe, *Mazé*!
G.? CURTIRAMEA Crn. Guadeloupe, *Mazé*!
G. CARTILAGINEA Crn. Guadeloupe, *Mazé*!
G. CIRCINNATA Crn. Guadeloupe, *Mazé*!
G. CRASSISSIMA Crn. Guadeloupe, *Mazé*!
G. DICHOTOMO-FLABELLATA Crn. Guadeloupe, *Mazé*!
G. DENDROIDES Crn. Guadeloupe, *Mazé*!
G. FLABELLATA Crn. Guadeloupe, *Mazé*!
G. GREVILLEI Crn. Guadeloupe, *Mazé*!
Geogr. Distr.
G. LUTEOPALLIDA? Crn. Guadeloupe, *Mazé*!
G. MEXICANA Crn. Guadeloupe, *Mazé*! Gulf of Mexico, *fide Kützing.*
G. PATENS Crn. Guadeloupe, *Mazé*!
Var. GRACILIS Crn. Guadeloupe, *Mazé*!
G. RAMULOSA Crn. Guadeloupe, *Mazé*! Agardh has published an Australian species under this name, which will have to give way to the above.
G. SECUNDIRAMEA Crn. Guadeloupe, *Mazé*!
G. SECUNDA Crn. Guadeloupe, *Mazé*!
G. SQUARROSA Crn. Guadeloupe, *Mazé*!
SPHÆROCOCCUS CORONOPIFOLIUS J. Ag. Grenada, *Murray*! Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic and Mediterranean.
PLOCARIA FLABELLIFORMIS Crn. Guadeloupe, *Mazé*!
P. CHONDRIOIDES Crn. Guadeloupe, *Mazé*!
P. DISTICHA Crn. Guadeloupe, *Mazé*!
P. ACULEATA Crn. Guadeloupe, *Mazé*!
P. OLIGACANTHA Crn. Guadeloupe, *Mazé*!
P. VAGA Crn. Guadeloupe, *Mazé*!
P. COMPLANATA Crn. Guadeloupe, *Mazé*!
P. LACINULATA Crn. Guadeloupe, *Mazé*!
P. DACTYLOIDES Crn. Guadeloupe, *Mazé*!
P. FLAGELLIFORMIS Crn. Guadeloupe, *Mazé*!
P. DISCIPLINALIS Crn. Guadeloupe, *Mazé*!
P. DIVARICATA Crn. Guadeloupe, *Mazé*!
P. SQUARROSA Crn. Guadeloupe, *Mazé*!
P. TRIDACTYLITES Crn. Guadeloupe, *Mazé*!
P. POLYMORPHA Crn. Guadeloupe, *Mazé*!
P. BIPENNATA Crn. Guadeloupe, *Mazé*!
P. CORTICATA Crn. Guadeloupe, *Mazé*!
Var. CHONDROIDES Crn. Guadeloupe, *Mazé*!
NITOPHYLLUM PUNCTATUM J. Ag. Florida, *Harvey*!
Geogr. Distr. N. Atlantic and Mediterranean.
N. PLATYCARPUM J. Ag. Bermuda, *Kemp.*
Geogr. Distr. Cape of Good Hope, Falkland Islands, Vancouver.
DELESSERIA TENUIFOLIA Harv. Guadeloupe, *Mazé*! Florida, *Harvey, Melvill*!
D. INVOLVENS Harv. Florida, *Harvey*!
D. HYPOGLOSSUM Lam. Florida, *Miss Reynolds*! in Farlow, Anderson, and Eaton, Alg. Exsicc. Am. Bor. 139.
Geogr. Distr. Warmer Atlantic.

Caloglossa Leprieurii J. Ag. Guadeloupe, *Mazé*! Florida, *Harvey*.
Geogr. Distr. Throughout warm Atlantic; Australia and New Zealand.

Helminthocladiaceæ.

Helminthocladia Cassei Crn. Guadeloupe, *Mazé*!
H. Schrammi Crn. Guadeloupe, *Mazé*!
Helminthora divaricata Ag. Florida, *Harvey*, *Melvill*! Bermuda, *Kemp*.
Geogr. Distr. Atlantic (Europe and America), Mediterranean, and Australia.
H. Guadelupensis Crn. Guadeloupe, *Mazé*.
H. antillarum Crn. Guadeloupe, *Mazé*!
H. dendroidea Crn. Guadeloupe, *Mazé*!
Nemalion liagoroides Crn. Guadeloupe, *Mazé*!
Scinaia furcellata Bivon. Guadeloupe, *Mazé*! Florida, *Harvey*. Bermuda, '*Challenger*.'
Geogr. Distr. Atlantic (Europe and America), Mediterranean, and Australia.
Liagora Cheyneana Harv. Florida, *Hooper*! in Farlow, Anderson and Eaton, Alg. Exsicc. Am. Bor., No. 71.
Geogr. Distr. Australia.
L. leprosa J. Ag. Guadeloupe, *Mazé*! Vera Cruz, *Liebman* (*fide Harvey*). Florida, *Harvey*, *Melvill*!
L. pulverulenta Ag. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Vera Cruz, *Liebman* (*fide Harvey*). Bermuda, *Kemp*.
f. tenuior Crn. Guadeloupe, *Mazé*!
L. Turneri Zan. Guadeloupe, *Mazé*!
Geogr. Distr. Red Sea, Indian Ocean, and Australia.
L. pinnata Harv. Guadeloupe, *Mazé*! Florida, *Harvey*.
Var. arbuscula Crn. Guadeloupe, *Mazé*!
L. valida Harv. Florida, *Harvey*! *Melvill*, *Hooper*! in Farlow, Anderson and Eaton, No. 70. Bermuda, *Kemp*, *Rein*, '*Challenger*'!
L. rugosa Zan. Guadeloupe, *Mazé*!
Geogr. Distr. Red Sea.
L. viscida Ag. Grenada, *Murray*! Jamaica, *Chitty*!
Var. gracilis Crn. Guadeloupe, *Mazé*!
Var. laxa Kütz. Guadeloupe, *Mazé*!
Var. coarctata Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Warmer Atlantic, Mediterranean, Australia, and Tasmania.
L. fragilis Zan. Guadeloupe, *Mazé*!
Geogr. Distr. Red Sea.
L. ceranoides Lam. Guadeloupe, *Mazé*! Vera Cruz, *Liebman* (*fide Harvey*).
Geogr. Distr. Warm Atlantic and Mediterranean.
L. distenta J. Ag. Guadeloupe, *Mazé*!
Var. complanata J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Warm Atlantic and Mediterranean.
L. albicans Lam. Guadeloupe, *Mazé*!

L. BRACHYCLADA Decne. Guadeloupe, *Mazé*!
L. DECUSSATA Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Cape Verde.
L. FARIONICOLOR Melv. Florida, *Melvill*!
L. CAYOHUESONICA Melv. Florida, *Melvill*!
L. PATENS Crn. Guadeloupe, *Mazé*!
L. PROLIFERA Crn. Guadeloupe, *Mazé*!
L. ? DENDROIDEA Crn. Guadeloupe, *Mazé*.
L. BIPINNATA Crn. Guadeloupe, *Mazé*!
GALAXAURA OBTUSATA Lam. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Jamaica, *Chitty*!
Geogr. Distr. Warm Atlantic (Brazil).
G. UMBELLATA Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Warm Atlantic, Australia.
G. CYLINDRICA Lam. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Jamaica, *Sloane*! *Chitty*!
Geogr. Distr. Red Sea.
G. FRAGILIS Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Tropical seas.
G. FASTIGIATA Harv. Bermuda, *Rein*.
Geogr. Distr. There is no *G. fastigiata* Harv. known to me, and the plant so quoted by Rein may be identical with *G. fastigiata* Decaisne, from the Moluccas.
G. RUGOSA Lam. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Santa Cruz (*fide Dickie*). Jamaica, *Sloane*! Danish West Indian Islands [*Hb. Mus. Brit.*!]. Bermuda, '*Challenger*'!
Geogr. Distr. Warm Atlantic [Pacific? and Indian Ocean?].
G. ANNULATA Lam. Barbadoes, *Dickie*!
Geogr. Distr. Pacific and Indian Oceans.
G. LAPIDESCENS Lam. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Jamaica, *Chitty*! Mexico (*fide Dickie*). Tortugas, *Bailey*! Florida, *Hooper*! in Farlow, Anderson & Eaton, No. 16. Bermuda, '*Challenger*'!
Geogr. Distr. Throughout all tropical seas.
G. INDURATA Lam. Danish West Indian Islands (*Hb. Mus. Brit.*!). Bahamas, *Ellis & Solander*.
G. FRUTICULOSA Lam. Bahamas, *Ellis & Solander*.
G. LICHENOIDES Lam. Bahamas, *Ellis & Solander*.
G. VALIDA Crn. Guadeloupe, *Mazé*!

CHÆTANGIEÆ.

ZANARDINIA MARGINATA J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Antigua (*fide Kützing*).
Geogr. Distr. Warm Atlantic, Indian Ocean, Australia.
ACROTYLUS CLAVATUS Harv. Guadeloupe, *Mazé*! Florida, *Harvey*!

GELIDIEÆ.

WURDEMANNIA SETACEA Harv. Guadeloupe, *Duchassaing* (fide J. Ag.). Florida, *Harvey*! *Melvill*! *Hooper*! in Farlow, Anderson & Eaton, No. 14. Bermuda, *Rein*.

Gelidium variabile J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Indian Ocean.
G. rigidum Mont. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Martinique (*Hb. Bronguiart*!). Cuba, *R. de la Sagra*. Bermuda. *Rein*.
Var. radicans J. Ag. Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*. Bermuda, *Farlow*! (in Farlow, Anderson & Eaton, No. 142). *Reliquiæ Brebissonianæ Ser. 2, Nos. 129 & 290*!
Geogr. Distr. Throughout warm seas.
G. corneum Lam. Grenada, *Murray*! Danish West Indian Islands, *Hohenack*! No. 559. Cuba, *R. de la Sagra*. Bermuda, *Kemp*.
Var. crinalis J. Ag. Guadeloupe, *Mazé*!
Var. setacea J. Ag. Guadeloupe, *Mazé*!
Var. cæspitosa J. Ag. Guadeloupe, *Mazé*!
Var. pristoides J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Throughout all oceans.
G. serrulatum J. Ag. La Guayra, *Liebman* (fide Harvey).
G. cartilagineum J. Ag. Florida [*Hb. Mus. Brit.*!].
Geogr. Distr. Indian and Pacific Oceans.
G. fastigiatum Kütz. Guadeloupe, *Mazé*! = Dicurella flabellata J. Ag.
Geogr. Distr. Cape of Good Hope.
G. nanum Grev. Guadeloupe, *Mazé*!
G. cærulescens Kütz. Guadeloupe, *Mazé*!
G. delicatulum Crn. Guadeloupe, *Mazé*!
G. ligulatonervosum Crn. Guadeloupe, *Mazé*!
G. spinescens Crn. Guadeloupe, *Mazé*!
G. ramulosum Mart. Martinique, *Hb. Montagne*! (*? Duperrey*).

Hypneaceæ.

Hypnea musciformis Lam. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Martinique, *Hb. le Jolis*! Jamaica, *Chitty*! Cuba, *R. de la Sagra*. Tortugas, *Hb. Dickie*! Santa Cruz, *Miss Dix*! Florida, *Harvey, Melvill*! Danish West Indian Islands, *Hohenack*.! No. 591. Bermuda, *Kemp, Rein*.
Var. spinulosa Mont. et Maill. Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*.
f. tenuis Hohen. St. Thomas, *Hohenack*!
Geogr. Distr. Warm Atlantic, Indian and Southern Oceans.
H. nigrescens Grev. Guadeloupe, *Mazé*!
Geogr. Distr. Indian Ocean.
H. armata J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
H. spicifera J. Ag.? Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
H. hamulosa Mont. Guadeloupe, *Mazé*! Martinique, *Hb. Montagne*! (*? Duperrey*).
Geogr. Distr. Red Sea, Indian Ocean, Cape of Good Hope.
H. rissoana J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.

H. DIVARICATA Grev. Guadeloupe, *Mazé*! Gulf of Mexico, *Liebman* (*fide J. Ag.*).
Geogr. Distr. Mascarene Islands?
H. CORNUTA J. Ag. Guadeloupe, *Mazé*! Santa Cruz, *Miss Dix* (*fide Harvey*). Florida, *Harvey, Melvill*! Bermuda, '*Challenger*'!
Geogr. Distr. China Seas?
H. VALENTIÆ Mont. Grenada, *Murray*! Guadeloupe, *Mazé*!
Geogr. Distr. Red Sea, Indian Ocean?
H. CERVICORNIS J. Ag. Guadeloupe, *Mazé*! Martinique, *Hb. le Jolis*! Gulf of Mexico, Mexican Coast, *Liebman* (*fide J. Ag.*).
Geogr. Distr. Mauritius.
H. SPINELLA J. Ag. Grenada, *Murray*! Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*.
f. MAJOR Crn. Guadeloupe, *Mazé*!
H. SETACEA, Kütz. Guadeloupe, *Mazé*!
H. SECUNDIRAMEA Mont. Martinique, *Duperrey*.
H. ARBORESCENS Crn. Guadeloupe, *Mazé*!
H. CORYMBOSA Crn. Guadeloupe, *Mazé*!
H. ACANTHOCLADA Crn. Guadeloupe, *Mazé*!
H. GRACILARIOIDES Crn. Guadeloupe, *Mazé*!
MYCHODEA SCHRAMMI Crn. Guadeloupe, *Mazé*!
M. GUADELUPENSIS Crn. Guadeloupe, *Mazé*!
M. POLYACANTHA Crn. Guadeloupe, *Mazé*!
M. PENNATA Crn. Guadeloupe, *Mazé*!

SOLIERIEÆ.

GELINARIA DENTATA Crn. Guadeloupe, *Mazé*!
CATENELLA OPUNTIA J. Ag., var. PINNATA J. Ag. (= C. PINNATA Harv.). Florida, *Harvey*! Bermuda, *Farlow*! (in Farlow, Anderson and Eaton, No. 149). *Reliquiæ Brebissonianæ*, Ser. 2, No. 207!
Geogr. Distr. Atlantic, Mediterranean, Pacific, Australia.
C. IMPUDICA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Indian Ocean.
RHABDONIA TENERA J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Florida, *Harvey, Melvill*!
Geogr. Distr. Atlantic (N. America).
R. RAMOSISSIMA Harv. Guadeloupe, *Mazé*! Florida, *Harvey, Melvill*!
Var. LATIFRONS Crn. Guadeloupe, *Mazé*!
R. DURA Zan., var. GRACILIS Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Red Sea.
EUCHEUMA SPINOSUM J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Indian Ocean.
E. NUDUM J. Ag. Guadeloupe, *Mazé*!
E. ACANTHOCLADA Harv. Barbadoes, *Hb. J. E. Gray*! Florida, *Harvey, Melvill*!
E. ISIFORME Ag. Cuba, *Tuomey* (*fide Harvey*). Florida, *Harvey*! *Melvill*! *Hooper*! (in Farlow, Anderson and Eaton, No. 12). Bermuda, *Kemp, Rein*, '*Challenger*'!
E. GELIDIUM J. Ag. Guadeloupe, *Mazé*!

E. SPECIOSUM J. Ag. Grenada, *Murray*!
Geogr. Distr. Australia.

WRANGELIEÆ.

WRANGELIA PLEBEIA J. Ag. Guadeloupe, *Mazé*! Vera Cruz, *Liebman*.
W. PENICILLATA Ag. Guadeloupe, *Mazé*! Florida, *Harvey*! *Melvill*! Bermuda, *Kemp*, *Rein*.
Geogr. Distr. Atlantic (Europe and America), Mediterranean, Australia?

CHONDRIEÆ.

LAURENCIA IMPLICATA J. Ag. Guadeloupe, *Mazé*! Florida, *Harvey*, *Melvill*! New Grenada, *Hb. Dickie*! (but possibly Pacific coast).
L. CERVICORNIS Harv. Guadeloupe, *Mazé*. Florida, *Harvey*, *Melvill*!
L. ARBUSCULA Sond. (= L. HETEROCLADA Harv. ?). Guadeloupe, *Mazé*.
Geogr. Distr. Australia.
L. CORYMBOSA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
L. SCOPARIA J. Ag. La Guayra, *Hb. Binder*. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Bermuda, *Kemp*.
f. MINOR Crn. Guadeloupe, *Mazé*!
L. INTRICATA Lam. Grenada, *Murray*! Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*.
L. DIVARICATA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Red Sea, Indian Ocean, Cape of Good Hope?
L. DENDROIDEA J. Ag. Guadeloupe, *Mazé*!
Var. TENUIFOLIA Crn. Guadeloupe, *Mazé*!
Var. CORYMBIFERA Crn. Guadeloupe, *Mazé*!
f. DENUDATA Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Warm Atlantic (Brazil), Australia, Corea.
L. PANICULATA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Warm Atlantic (Europe), Indian Ocean?
L. THUYOIDES Kütz. (= L. PANICULATA J. Ag. ?). Guadeloupe, *Mazé*!
L. PAPILLOSA Grev. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Danish West Indian Islands, *Hohenack*! No. 571. Jamaica, *Chitty*! Cuba, *R. de la Sagra*. Mexico (*fide Dickie*). Florida, *Harvey*! *Melvill*! Bermuda, *Kemp*, *Rein*.
Var. SUBSECUNDA Kütz. *Hooper*! (in Farlow, Anderson & Eaton, No. 63).
Geogr. Distr. Warm Atlantic, Mediterranean, Red Sea, Indian Ocean, Pacific.
L. OBTUSA Lam. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Danish West Indian Islands, *Hohenack.*! No. 570. Jamaica, *Chitty*! Florida, *Harvey*, *Melvill*! Bermuda, *Kemp*, *Rein*, '*Challenger*'!
Var. GELATINOSA J. Ag. Guadeloupe, *Mazé*!
Var. RACEMOSA Kütz. Guadeloupe, *Mazé*!
Var. MICROCLADIA Kütz. Danish West Indian Islands, *Hohenack*! No. 385.
Geogr. Distr. Throughout all seas.

L. VIRGATA J. Ag. Guadeloupe, *Mazé*!
f. DENUDATA Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope, Australia, New Zealand?
L. HYBRIDA Lenormand. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Europe).
L. CÆSPITOSA J. Ag.? Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Europe).
L. PINNATIFIDA Lam. Guadeloupe, *Mazé*! Jamaica, *Chitty*!
Geogr. Distr. Atlantic, Mediterranean.
L. TUBERCULOSA J. Ag. Guadeloupe, *Mazé*! Vera Cruz, *Liebman*.
Var. GEMMIFERA J. Ag. (= L. GEMMIFERA Harv.). Guadeloupe, *Mazé*! Florida, *Harvey*! *Melvill*! Bermuda, *Rein*, '*Challenger*.'
L. FLEXUOSA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
L. CONCINNA Mont. Grenada, *Murray*! Guadeloupe, *Mazé*!
Geogr. Distr. Australia (Port Natal?).
L. CANARIENSIS Mont. Guadeloupe, *Mazé*!
f. MAJOR Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Warm Atlantic.
L. VAGA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. New Caledonia.
L. CHONDRYOPSIDES Crn. Guadeloupe, *Mazé*!
L. CRASSIFRONS Crn. Guadeloupe, *Mazé*!
f. DENDROIDES Crn. Guadeloupe, *Mazé*!
ASPARAGOPSIS DELILEI Mont. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Bermuda, *Rein*.
Geogr. Distr. Atlantic, Mediterranean, Indian Ocean, Australia? Philippines.

RHODOMELEÆ.

CHONDRIOPSIS LITTORALIS J. Ag. Guadeloupe, *Mazé*! Vera Cruz, *Liebman*. Florida, *Harvey*! *Melvill*! Bermuda, *Rein*.
C. ATROPURPUREA J. Ag. Florida, *Harvey*. (I have seen Harvey's specimen from S. Carolina.)
Geogr. Distr. Brazil.
C. CAPENSIS Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
C. TENUISSIMA J. Ag. Guadeloupe, *Mazé*!
f. CRASSA Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Europe and America), Mediterranean, Australia.
C. HARVEYANA J. Ag.? Guadeloupe, *Mazé*!
Geogr. Distr. Tasmania.
C. DASYPHYLLA J. Ag. Grenada, *Murray*! Guadeloupe, *Mazé*! Florida, *Harvey*! *Melvill*!
Var. SEDIFOLIA J. Ag. Florida, *Harvey*, *Melvill*!
f. GRACILIS J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Europe and America), Australia.
C. TENERA Crn. Guadeloupe, *Mazé*!

Chondriopsis cnicophylla Melv., sp. nov.—Fronde robustâ, divaricato-ramosâ, ramis decompositis, alternatis, ramulis squarrosa-patentibus, apicibus plus minus clavatis, interdum attenuatis, basi constrictâ.

Root a small disc. Main stem robust; zigzagged frond with divaricate spreading branches, alternate, decompound; the ultimate ramuli squarely patent; apices of the ramuli more or less clubbed, but occasionally attenuate, constricted at the base. Tetraspores immersed in the ramuli; conceptacles not present; colour, when fresh, dark purplish. (Plate 284, figs. 1*a*, 1*b*).

This species differs from all the varieties of *C. dasyphylla* Woodw. or *C. Baileyana* Harv. I have seen, in its divaricate growth, and squarely-set patent ramuli, giving a thorny character to the frond. One specimen alone was found on the sandy beach at Cedar Keys, West Florida, on the Gulf of Mexico, after a somewhat severe gale, 8th March, 1872.—J. C. M.

Chondriopsis leptacremon Melv., sp. nov. — Fronde tenui, subtili, simpliciter ramosâ, ramulis alternatis, elongatis, apicibus subattenuatis, basi constrictâ.

Plant somewhat cæspitose at base; frond extremely slender and graceful, simply branched; ramuli elongate; apices of the ramuli slightly clavate or subattenuate, constricted at the base. (Plate 284, figs. 2*a*, 2*b*).

This is the smallest and slenderest species of the genus, bearing the same proportion to *C. tenuissima* Good. in this respect that *Ceramium byssoideum* Harv. does to *C. gracillimum* Ag. The fructification is unknown. Colour pale brownish pink, becoming dark brown when dry, and staining the paper the same colour. Of this species but two specimens were gathered, both growing at low-water on a coral slab below Fort Taylor, at the S.W. extremity of the Island of Key West, S. Florida: one of the specimens was submitted to Prof. J. G. Agardh, who pronounced it almost certainly an undescribed new form.—J. C. M.

Acanthophora muscoides Bory. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Santa Cruz, *Miss Dix*! Cuba, *R. de la Sagra*. Florida, *Harvey*! *Palmer*! *Hooper*! (in Farlow, Anderson & Eaton, No. 8).

Geogr. Distr. Warm Atlantic (Africa and America).

A. Delilei Lam. Florida, *Harvey*, *Melvill*!

Geogr. Distr. Mediterranean, Red Sea.

A. Thierii Lam. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Martinique, *Duperrey*. Santa Cruz, *Miss Dix* (*fide Harvey*). St. Thomas, *Oersted*, *Duchassaing*, *Hohenack.*! No. 389. Cuba, *R. de la Sagra*. Mexico, *Liebman*. Florida, *Harvey*, *Melvill*, *Hooper*! (in Farlow, Anderson and Eaton, No. 9). Bermuda, *Kemp*, *Rein*.

f. gracilis Crn. Guadeloupe, *Mazé*!

Geogr. Distr. Brazil, Europe (Biarritz).

A. intermedia Crn. Guadeloupe, *Mazé*!

Martensia pavonia J. Ag. Guadeloupe, *Mazé*! Santa Cruz, *Duchassaing*, *Hb. Rosenberg*.

Alsidium Blodgettii Harv. Florida, *Harvey*. Bermuda, *Rein*.

Digenea simplex Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Florida, *Harvey*! *Melvill*! Bermuda, *Kemp*, *Rein*.

Geogr. Distr. Warm Atlantic, Mediterranean, Red Sea, Indian Ocean, Japan.

Bryothamnion Seaforthii Kütz. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Santa Cruz and Jamaica (*fide J. Ag.*). Cuba, *R. de la Sagra*. Mexico (*fide J. Ag.*). "West Indies," *Hb. Waller*!

Geogr. Distr. Brazil.

B. triangulare Kütz. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Jamaica, *Chitty*! Cuba, *R. de la Sagra*. Danish West Indian Islands, *Hohenack.*! Florida, *Harvey*! *Melvill*!

Geogr. Distr. Brazil.

B. hypnoides Kütz. Grenada, *Murray*! Guadeloupe, *Mazé*! Cuba, *Hb. Montagne* (? R. de la Sagra).

Bostrychia rivularis Harv. Guadeloupe, *Mazé*! Florida, *Harvey*. (I have seen Harvey's specimen from S. Carolina.)

Geogr. Distr. Australia.

B. periclados J. Ag. Guadeloupe, *Mazé*! Santa Cruz, *Hb. Hofman Bang*. Florida, *Harvey*.

Geogr. Distr. Friendly Islands.

B. Moriziana J. Ag. Guadeloupe, *Mazé*! "Antilles," *Moritz*.

Geogr. Distr. Guiana.

B. scorpioides Mont. Bermuda, *Kemp*.

Geogr. Distr. N. Atlantic (British Islands to Spain), Mediterranean.

B. tenella J. Ag. Guadeloupe, *Mazé*! Martinique, *Hb. Le Jolis*! Cuba, *R. de la Sagra*. Florida, *Harvey*! *Melvill*! Bermuda, *Farlow*! (in Farlow, Anderson and Eaton, No. 137).

Geogr. Distr. Cape of Good Hope, Indian Ocean, Pacific.

B. Montagnei Harv. Cuba, *Tuomey* (*fide Harvey*). Florida, *Harvey*! Bermuda, *Rein*! *Farlow*! in (Farlow, Anderson and Eaton, No. 136); *Reliquiæ Brebissonianæ*! (Ser. 2, Nos. 203 & 298).

B. sertularia Mont. Guadeloupe, *Mazé*! Bermuda, *Farlow*! (in Farlow, Anderson and Eaton, No. 138).

Geogr. Distr. Guiana.

B. pilifera Kütz. Guadeloupe, *Mazé*!

Geogr. Distr. Senegambia.

B. elegans Crn. Guadeloupe, *Mazé*!

B. polysiphonioides Crn. Guadeloupe, *Mazé*!

B. muscoides Crn. Guadeloupe, *Mazé*!

B. dasyæformis Crn. Guadeloupe, *Mazé*!

B. guadelupensis Crn. Guadeloupe, *Mazé*!

B. Mazei Crn. Guadeloupe, *Mazé*!

B. capillacea Crn. Guadeloupe, *Mazé*!

Polysiphonia secunda Zan. Grenada, *Murray*! Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*. Florida, *Harvey*, *Melvill*! Bermuda, *Farlow*! (in Farlow, Anderson and Eaton, No. 134); *Herb. Greville*!

Geogr. Distr. Atlantic, Mediterranean.

P. PECTEN-VENERIS Harv. Florida, *Harvey*, *Melvill*!
P. RUFOLANOSA Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Australia.
P. MONOCARPA Mont. Guadeloupe, *Mazé*.
Geogr. Distr. Cape of Good Hope.
P. OBSCURA J. Ag. Guadeloupe, *Mazé*! Santa Cruz, *Oersted*.
Geogr. Distr. Atlantic and Mediterranean.
P. EXILIS Harv. Florida, *Harvey*. Bermuda, '*Challenger*'!
P. FRACTA Harv. Grenada, *Murray*! Florida, *Harvey*!
P. ECHINATA Harv. Florida, *Harvey*.
P. DICTYURUS J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Pacific (Mexico).
P. THYRSIGERA J. Ag. La Guayra (*fide Kützing*). Grenada, *Murray*! Guadeloupe, *Mazé*! [Harvey says "La Guayra, Mexico," and quotes the locality from Kützing, who, however, says nothing of "Mexico." No doubt it is Venezuela.]
P. VERTICILLATA Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Pacific (California).
P. PULVINATA J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic, Mediterranean.
P. INCOMPTA Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
P. HAVANENSIS Mont. Guadeloupe, *Mazé*! Santa Cruz, *Oersted*. Cuba, *R. de la Sagra*! Florida, *Harvey*! *Melvill*!
Var. BINNEYI J. Ag. Guadeloupe, *Mazé*! Florida, *Harvey*! *Melvill*!
Geogr. Distr. Atlantic (France).
P. SUBTILISSIMA Mont. Grenada, *Murray*! Guadeloupe, *Mazé*! (?). St. Thomas, '*Challenger*'! Bermuda, '*Challenger*.'
Geogr. Distr. Atlantic (Cayenne and U. S. America).
P. UTRICULARIS Zan. Grenada, *Murray*! Guadeloupe, *Mazé*!
Geogr. Distr. Suez.
P. MOLLIS Hook. et Harv. Grenada, *Murray*! Guadeloupe, *Mazé*!
Geogr. Distr. Australia.
P. CAMPTOCLADA Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Pacific (Peru).
P. FUNEBRIS De Not. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
P. GORGONIÆ Harv. Florida, *Harvey*, *Melvill*!
P. FERULACEA Suhr. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Vera Cruz, *Liebman*. Florida, *Harvey*, *Melvill*!
Geogr. Distr. Australia.
P. HAPALACANTHA Harv. Florida, *Harvey*, *Melvill*.
P. VIOLACEA Grev. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Europe and America).
P. FIBRILLOSA Grev. Bermuda, *Kemp*, *Rein*.
Geogr. Distr. Atlantic (Europe and America).
P. ELONGATA Grev. Bermuda, *Kemp*.
Geogr. Distr. Atlantic (Europe, America, and N. Africa), Mediterranean.
P. HIRTA J. Ag. Florida, *Harvey*, *Melvill*!
Geogr. Distr. Mediterranean.

P. COLLABENS Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean and neighbouring Atlantic.
P. FURCELLATA Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic and Mediterranean.
P. VARIEGATA Zan. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Europe and America), Mediterranean.
P. NIGRESCENS Grev. Bermuda, *Rein.*
Geogr. Distr. Atlantic (Europe and N. America), New Zealand.
P. CALLITHAMNIODES Crn. Guadeloupe, *Mazé*!
P. BOSTRYCHIOIDES Crn. Guadeloupe, *Mazé*!
P. MUCOSA Crn. Guadeloupe, *Mazé*!
P. CAPUCINA Crn. Guadeloupe, *Mazé*!
AMANSIA MULTIFIDA Zan. Guadeloupe, *Mazé*! Martinique, *Duperrey*! Jamaica, *Chitty*! Florida, *Harvey*! *Melvill*!
Geogr. Distr. Brazil, New Zealand.
A. DUPERREYI J. Ag. Guadeloupe, *Mazé*! Martinique, *Duperrey.*
VIDALIA OBTUSILOBA J. Ag. Guadeloupe, *Mazé*!
POLYZONIA? DIVARICATA Crn. Guadeloupe, *Mazé*!
DASYA PELLUCIDA Harv.? Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope, Australia.
D. WURDEMANNI Bailey. Guadeloupe, *Mazé*! Florida, *Harvey*! *Melvill*!
Geogr. Distr. Atlantic, Mediterranean.
D. GIBBESII Harv. Nassau (Bahamas), *Palmer*! Florida, *Harvey*! *Melvill*! *Hooper*! in (Farlow, Anderson and Eaton, No. 3).
D. HUSSONIANA Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Red Sea.
D. ELEGANS Ag. Florida, *Harvey.* Bermuda, *Rein.*
Var. SCOTIOCHROA Melv. Florida, *Melvill*!
Geogr. Distr. Atlantic (Europe and N. America), Mediterranean.
D. MOLLIS Harv. Florida, *Harvey*, *Melvill*!
Geogr. Distr. Australia.
D. CORYMBIFERA J. Ag. Grenada, *Murray*! Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Europe), Mediterranean.
D. ARBUSCULA Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Europe and Africa), Mediterranean.
D. MUCRONATA Harv. Grenada, *Murray*! Florida, *Harvey*! *Melvill*! *Hooper*! (in Farlow, Anderson and Eaton, No. 2). Bermuda, *Kemp.*
D. RAMOSISSIMA Harv. Grenada, *Murray*! Florida, *Harvey*! *Melvill*! *Hooper*! (in Farlow, Anderson and Eaton, No. 1).
D. HARVEYI Ashm. Florida, *Melvill*!
D. TRICHOCLADOS Mart. Hayti, *Hb. Maille.* Florida, *Harvey.*
Var. OERSTEDI J. Ag. Guadeloupe, *Mazé*! Santa Cruz and St. Thomas, *Oersted.*
D. LALLEMANDI Mont.? Guadeloupe, *Mazé*!
Geogr. Distr. Red Sea, Australia.
D. TUMANOWICZI Gatty. "West Indies," *Tumanowicz.* Guadeloupe, *Mazé*! Florida, *Harvey*, *Melvill*! Bermuda, '*Challenger*'!
D. DICHOTOMO-FLABELLATA Crn. Guadeloupe, *Mazé*!

Dasya Mazei nob. = Eupogodon Mazei Crn. Guadeloupe, *Mazé*!
D. grandis nob. = Eupogodon grande Crn. Guadeloupe, *Mazé*!
Dictyurus occidentalis J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Jamaica, *Chitty*! Vera Cruz, *Liebman*.
Sarcomenia miniata J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Cadiz).

Corallineæ.

Hapalidium confervicola J. Ag. Guadeloupe, *Mazé*.
Geogr. Distr. Atlantic, Mediterranean.
Melobesia membranacea Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic, Mediterranean.
M. farinosa Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic, Mediterranean, Australia.
M. verrucata Lam. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic, Mediterranean.
M. pustulata Lam. Grenada, *Murray*! Barbadoes, *Dickie*! Martinique, *Hb. Le Jolis*! Bermuda, '*Challenger*'!
Geogr. Distr. Atlantic, Mediterranean, Pacific.
M. amplexifrons Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
Lithothamnion polymorphum J. Ag. Grenada, *Murray*! Guadeloupe, *Mazé*!
Geogr. Distr. General.
Mastophora Lamourouxii Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope, Java (not Australia).
Amphiroa fragilissima Lam. Grenada, *Murray*! Guadeloupe, *Mazé*! Jamaica, *Sloane*! Florida, *Harvey*, *Melvill*! *Hooper*! (in Farlow, Anderson & Eaton, No. 15). Bermuda, '*Challenger*'!
Geogr. Distr. Mediterranean.
A. breviarticulata Aresch. "In mari Indiæ occidentalis," *Hb. Sonder*.
A. tribulus Lam. Guadeloupe, *Mazé*! Santa Cruz, *Oersted*.
A. dilatata Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope (not Australia).
A. anceps Decne. Guadeloupe, *Mazé*!
Geogr. Distr. Norfolk Island.
A. charoides Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Australia.
A. foliacea Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Marianne Islands.
A. brasiliana Decne., var. major Crn. Guadeloupe, *Mazé*!
Var. ungulata Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Brazil.
A. crassa Lam. Guadeloupe, *Mazé*!
A. dubia Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
A. nodulosa Kütz. La Guayra (*J. Smith in Hb. Sonder*). Guadeloupe, *Mazé*!
A. irregularis Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.

A. VERRUCOSA Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Australia.
A. DEBILIS Kütz. Cuba, *Hb. Binder.* Florida, *Harvey*, *Melvill*! Bermuda, *Rein.*
JANIA FASTIGIATA Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
J. RUBENS Lam. Grenada, *Murray*! Guadeloupe, *Mazé*! Jamaica, *Sloane*! *Chitty*! Florida, *Harvey*, *Melvill*!
Geogr. Distr. General.
J. PYGMÆA Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
J. PUMILA Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Red Sea and Indian Ocean.
J. CUBENSIS Mont. Grenada, *Murray*! Guadeloupe, *Mazé*! Cuba, *R. de la Sagra.* Vera Cruz, *Hb. Le Jolis*! Florida, *Harvey*, *Melvill*! Bermuda, *Rein.*
J. LONGIFURCA Zan. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
J. TENELLA Kütz. Guadeloupe, *Mazé*! "Ad oras Mexicanas," *Kützing.*
Geogr. Distr. Mediterranean.
J. CAPILLACEA Harv. Cuba, *Tuomey* (*fide Harvey*).
J. COMOSA Crn. Guadeloupe, *Mazé*!
CORALLINA OFFICINALIS L. Bermuda, *Kemp.*
Geogr. Distr. Arctic Sea and N. Atlantic, Mediterranean, Black Sea.
C. SUBULATA Ellis et Sol. Barbadoes, *Dickie*! Jamaica, *Sloane*! "West Indies," *Ellis & Solander.*
Geogr. Distr. Brazil, Mediterranean, and Australia.
C. CUVIERI Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Australia.
C. PLUMIFERA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Australia.
C. TRICHOCARPA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Australia.
C. CERATOIDES Kütz. Guadeloupe, *Mazé*! Mexico, *Leibold.*

II. PHÆOPHYCEÆ.

FUCACEÆ.

SARGASSUM INCISIFOLIUM J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
S. POLYPHYLLUM J. Ag. Guadeloupe, *Mazé*! St. Thomas, *Hohenack*!
Geogr. Distr. Pacific.
S. ANGUSTIFOLIUM Ag. Grenada, *Murray*! Guadeloupe, *Mazé*!
Geogr. Distr. Indian Ocean.
S. FILIPENDULA Ag. Gulf of Mexico (*fide J. G. Agardh*). Florida, *Melvill*!
S. DENTIFOLIUM Ag. Florida (*fide Farlow* in U. S. Com. Fish. Report, 1876, p. 706).
Geogr. Distr. Red Sea.

S. PTEROPLEURON Grunow. Bahamas, '*Novara*.' Florida, *Palmer*! (in Farlow, Anderson and Eaton, No. 104).

S. HYSTRIX J. Ag. Gulf of Mexico (*fide J. G. Agardh*).
Geogr. Distr. Atlantic (N. America).

S. PLATYCARPUM Mont. Grenada, *Murray*! Barbadoes. *Dickie?* Guadeloupe, *Mazé*! Martinique, *Duperrey*. "Ad alias insulas Indiæ occidentalis (Mus. Petropolit.!)," J. G. Ag.
Geogr. Distr. Warm Atlantic.

S. LIEBMANNI J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Pacific (Mexico).

S. DESFONTAINESII Ag. Guadeloupe, *Mazé*! "Ex insulis Indiæ occidentalis," *Hb. Binder*! J. G. Ag.

S. LENDIGERUM Ag. Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*. Bermuda, *Rein*.
Var. FISSIFOLIUM Harv. Bermuda, *Rein*.
Geogr. Distr. Atlantic (Senegambia, Ascension, Teneriffe).

S. CYMOSUM Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*.
Var. DICHOTOMUM Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Warm Atlantic (Brazil and Africa).

S. LEPTOCARPUM Kütz. Guadeloupe, *Mazé*! "Ad Antillas," *Kütz*.

S. LINIFOLIUM Ag. Bermuda, *Rein*.
Geogr. Distr. Mediterranean (Canary Islands, rare).

S. VULGARE Ag. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Jamaica, *Sloane*! *Chitty*! Cuba, *R. de la Sagra*. Florida, *Harvey*, *Melvill*! Bermuda, *Kemp*, *Rein*.
f. FOLIOSISSIMA = S. FOLIOSISSIMUM Lam. Barbadoes, *Dickie*!
Geogr. Distr. Warm Atlantic.

S. POLYCERATIUM Mont. Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*.

S. FURCATUM Kütz. Guadeloupe, *Mazé*! St. Thomas (*fide Kützing*).

S. AFFINE J. Ag. Guadeloupe, *Mazé*! Danish West Indian Islands, *Hohenack*! "Inter Cubam et Jamaicam," *Liebman*. Bermuda, *Rein*.
Var. ANGUSTIFOLIA. West Indies, *Hohenack*!

S. BACCIFERUM Ag. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Jamaica, *Sloane*! *Chitty*! Vera Cruz, *Hohenack*! Florida, *Harvey*, *Melvill*! Bermuda, *Kemp*, *Rein*.
Geogr. Distr. Warm Oceans.

S. ESPERI Ag. Cuba, *R. de la Sagra*.
Geogr. Distr. Brazil.

S. TRACHYPHYLLUM Kütz. Guadeloupe, *Mazé*! Danish West Indian Islands, *Hohenack*! (No. 434). "Ad Antillas," *Kütz*.

S. CHEIRIFOLIUM Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Senegambia.

S. DIVERSIFOLIUM Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean and Atlantic (Canary Islands).

S. INTEGRIFOLIUM Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Brazil.

S. DICHOCARPUM Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Senegambia.

S. BREVIPES Kütz. Barbadoes, *Dickie*! Vera Cruz (*fide Kützing*).

S. Turneri Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean, Red Sea.
S. spinulosum Crn. Guadeloupe, *Mazé*! "Ex India occidentali," *Kütz.*
S. Montagnei Bailey. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (N. America).
Turbinaria vulgaris J. Ag. Guadeloupe, *Mazé*! Cuba, *R. de la Sagra.* Jamaica, *Sloane*!
Var. decurrens J. Ag. Guadeloupe, *Mazé*!
Var. trialata J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Warm Oceans.
Cystoseira myrica J. Ag. Nassau (Bahama Islands), *Palmer*! (No. 8, Algæ Bahamenses).
Geogr. Distr. Red Sea and Persian Gulf.
Fucus ceranoides L. Bermuda, *Kemp.*
Geogr. Distr. North Sea, Atlantic, Europe, and N. America.
F. distichus L. Bermuda, *Kemp.*
Geogr. Distr. North Sea and N. Atlantic (Faroe, Iceland, Greenland, Newfoundland, &c.).

Dictyotaceæ.

Dictyota dichotoma J. Ag. (D. attenuata Kütz.). Grenada, *Murray*! Guadeloupe, *Mazé*! Jamaica, *Chitty*! Florida, *Harvey, Melvill*! Bermuda, *Kemp, Rein*, '*Challenger.*'
Var. implexa J. Ag. Guadeloupe, *Mazé*!
Var. curvula Crn. Guadeloupe, *Mazé*!
Var. latifrons Crn. Guadeloupe, *Mazé*!
Var. intricata Grev. Bermuda, *Kemp.*
Geogr. Distr. Warm and temperate oceans.
D. radicans Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Australia.
D. patens J. Ag. St. Thomas (*fide J. Agardh*).
Geogr. Distr. Friendly Islands.
D. ciliata J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Martinique, *Hb. Le Jolis*! Florida, *Harvey*! *Melvill*! Bermuda, *Kemp, Rein.*
Geogr. Distr. Indian Ocean? Australia?
D. ligulata Kütz. Bermuda, '*Challenger*'!
Geogr. Distr. Atlantic (France) and Mediterranean.
D. nævosa Suhr. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
D. liturata J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
D. Bartayresiana Lam. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! St. Thomas, *Young*! Danish West Indian Islands, *Hohenack*! (Meeralgen, Nos. 427, 428). Vera Cruz, *Liebman.* Florida, *Melvill.* Bermuda, *Kemp*, '*Challenger.*'
Var. divaricata J. Ag. Guadeloupe, *Mazé*!
D. dentata Lam. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Cuba, *R. de la Sagra.*
Geogr. Distr. Brazil.

D. Brongniartii J. Ag. Guadeloupe, *Mazé*! Martinique, *Duperrey*.
Geogr. Distr. Brazil.

D. crenulata J. Ag. Guadeloupe, *Mazé*! Bermuda, *Kemp*.
Geogr. Distr. Pacific (Mexico), Indian Ocean (Tuticorin).

D. sandvicensis Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Pacific.

D. pardalis Kütz. Barbadoes, *Dickie*! "E mari Antillarum," *Kütz.*

D. pinnatifida Kütz. Guadeloupe, *Mazé*! Antigua, *Hb. Sonder*.
Geogr. Distr. Warm Pacific.

D. linearis Ag. Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*.
Geogr. Distr. Mediterranean and neighbouring Atlantic. [Red Sea?]

D. acutiloba J. Ag. Barbadoes, *Hb. J. E. Gray*! Guadeloupe, *Mazé*! St. Thomas, *Hohenack*! Florida, *Melvill*!
Geogr. Distr. Pacific and China Sea.

D. furcellata Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Australia.

D. fasciola Lam. Guadeloupe, *Mazé*! Danish West Indian Islands, *Hohenack*! (Meeralgen, No. 429). Florida, *Harvey, Melvill*! *Hooper*! (in Farlow, Anderson and Eaton, No. 161). Bermuda, *Rein*.

Var. abyssinica J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean, Red Sea.

D. cervicornis Kütz. Guadeloupe, *Mazé*! Florida, *Harvey*. [Recorded by Harvey as *D. fasciola*.]

D. paniculata J. Ag.? Guadeloupe, *Mazé*!
Geogr. Distr. Australia.

D. Antiguæ Kütz. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Antigua, *Hb. Sonder*.

D. indica Sond. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Cuba, *J. Smith* (*Hb. Sonder*).

f. torta Crn. Guadeloupe, *Mazé*.

D. æqualis Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.

D. cuspidata Kütz. Guadeloupe, *Mazé*! Vera Cruz, *Liebman*.

D. bipinnata Crn. Guadeloupe, *Mazé*!

D. variabile Crn. (= D. polycarpa Kutz. Spatoglossum variabile Fig. et De Not.). Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.

D. prolifera Lam. Guadeloupe, *Mazé*!
Geogr. Distr. Australia.

D. Suhrii nob. (= D. prolifera Suhr, non Lam.). Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.

Dilophus Guineensis J. Ag. Guadeloupe, *Mazé*! St. Croix, *Oersted*.
Geogr. Distr. The "St. Thomas" quoted by Kützing and Agardh is the island in the Gulf of Guinea.

D. alternans J. Ag. Florida, *Farlow*.

Taonia Schroederi J. Ag. Guadeloupe, *Mazé*! Vera Cruz, *Liebman*, *Hohenack*! Jamaica, *Chitty*! Bermuda, *Kemp? Farlow*! (in Farlow, Anderson and Eaton, No. 159).
Geogr. Distr. Brazil.

T. ATOMARIA J. Ag.? Dominica, *Hb. Mus. Brit.*! [no collector's name. Ex Herb. Harv.?].

Geogr. Distr. N. Atlantic, Mediterranean.

PADINA PAVONIA J. Ag. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! St. Thomas, *Young*! Jamaica, *Sloane*! *Chitty*! *Wright*! Cuba, *R. de la Sagra*. Florida, *Harvey*! *Melvill*! Bermuda, *Kemp*, *Rein*, '*Challenger*'!

Geogr. Distr. General in temperate and warm oceans.

P. COMMERSONI Bory. Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*. St. Croix and Florida (*fide J. Agardh*).

Geogr. Distr. Indian Ocean, Australia, Pacific.

ZONARIA VARIEGATA Lam. Guadeloupe, *Mazé*! Martinique, *Duperrey*. Danish West Indian Islands, *Hohenack*! (Meeralgen, No. 516. Cuba, *R. de la Sagra*. Bermuda, '*Challenger*'!

Geogr. Distr. Warm Atlantic.

Z. LOBATA Ag. (= Z. FULIGINOSA Mart.). Barbadoes, *Dickie*! Guadeloupe, *Mazé*! [with "forme padinoide"]. Florida, *Harvey*! *Melvill*! *Hooper*! (in Farlow, Anderson and Eaton, No. 92). Bermuda, *Kemp*, *Rein*, '*Challenger*'!

Geogr. Distr. Atlantic (Cape of Good Hope, Brazil, Canaries).

Z. CRUSTACEA Crn. Guadeloupe, *Mazé*!

Z. GYMNOSPORA Kütz.? Guadeloupe, *Mazé*! St. Thomas, *Hb. Sonder*. Danish West Indian Islands, *Hohenack*! (Meeralgen, No. 515). [The Guadeloupe specimen is a very young one, and Hohenack's is mature. Allowing for this, I am very doubtful of their being the same species.]

Z. PARVULA Ag. Bermuda, *Kemp*.

Geogr. Distr. N. Atlantic, North Sea, Mediterranean.

HALYSERIS DELICATULA J. Ag. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*. "Shores of Mexico" (*fide J. G. Agardh*).

Geogr. Distr. Brazil.

H. JUSTII J. Ag. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Martinique, *Duperrey*. Jamaica, *Chitty*! Cuba, *R. de la Sagra*. Bermuda, '*Challenger*'!

Geogr. Distr. Brazil.

H. PLAGIOGRAMMA Mont. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Jamaica, *Chitty*! Cuba, *R. de la Sagra*. Bermuda, *Rein*.

Geogr. Distr. Brazil [Sandwich Islands?].

H. POLYPODIOIDES Ag. Bermuda, *Kemp*, *Rein*.

Geogr. Distr. Atlantic, North Sea, Mediterranean, Tasmania.

SORANTHERA LEATHESIÆFORMIS Crn. Guadeloupe, *Mazé*!

ECTOCARPACEÆ.

ECTOCARPUS SILICULOSUS Lyngb. Guadeloupe, *Mazé*!

Geogr. Distr. Atlantic (from Faroe to Cape of Good Hope and Cape Horn), Mediterranean, Australia.

E. MITCHELLÆ Harv.? Guadeloupe, *Mazé*!

E. DUCHASSAINGIANUS Grünow. Guadeloupe, *Mazé*! (*Duchassaing*).

E. GUADELUPENSIS Crn. Guadeloupe, *Mazé*!

E. MACROCARPUS Crn. Guadeloupe, *Mazé*!

E. FENESTROIDES Crn. Guadeloupe, *Mazé* !
E. SPONGODIOIDES Crn. Guadeloupe, *Mazé* !
E. HAMATUS Crn. Guadeloupe, *Mazé* !
E. HETEROCARPUS Crn. Guadeloupe, *Mazé* !
E. OBTUSOCARPUS Crn. Guadeloupe, *Mazé* !
E. DENUDATUS Crn. Guadeloupe, *Mazé* !
E. PUSILLUS Griff. Barbadoes, *Dickie* !
Geogr. Distr. Britain.
E. MINUTULUS Mont. Cuba, *R. de la Sagra.*

SPHACELARIACEÆ.

SPHACELARIA TRIBULOIDES Menegh. Guadeloupe, *Mazé* ! Gulf of Mexico, *Liebman.*
Geogr. Distr. Mediterranean, Red Sea, Australia.
S. BRACHYGONIA Mont. Martinique, *Hb. Le Jolis* !
Geogr. Distr. Brazil.

CHORDARIEÆ.

MYRIOCLADIA CAPENSIS J. Ag. Guadeloupe, *Mazé* !
Geogr. Distr. Cape of Good Hope.
M. GRACILIS Crn. (= MESOGLOIA GRACILIS Berk.). Guadeloupe, *Mazé* !
Geogr. Distr. N. Atlantic.
M. MEDITERRANEA Crn. Guadeloupe, *Mazé* !
Geogr. Distr. Mediterranean.
MESOGLOIA VERMICULATA Le Jol. Bermuda, *Kemp*, *Rein.*
Geogr. Distr. Atlantic and North Sea.
EUDESME VIRESCENS J. Ag. (= MESOGLOIA VIRESCENS Carm.). Guadeloupe, *Mazé* ! Florida, *Harvey*. Bermuda, *Kemp*, '*Challenger*.'
Geogr. Distr. N. Atlantic and North Sea.
CASTAGNEA GRIFFITHSIANA J. Ag. Bermuda, *Kemp.*
Geogr. Distr. N. Atlantic and North Sea.
CLADOSIPHON ZOSTERICOLA Harv. Guadeloupe, *Mazé* !
Geogr. Distr. Australia.
LIEBMANNIA LEVEILLEI J. Ag. Vera Cruz, *Liebman.*
Geogr. Distr. Atlantic (France) and Mediterranean.

PUNCTARIACEÆ.

STRIARIA FRAGILIS J. Ag. ? Guadeloupe, *Mazé* !
Geogr. Distr. North Sea (and Baltic).

ARTHROCLADIACEÆ.

CHNOOSPORA FASTIGIATA var. PACIFICA J. Ag. Guadeloupe, *Mazé* !
Geogr. Distr. Pacific (Mexico).
C. ? IMPLEXA J. Ag. Guadeloupe, *Mazé* !
Geogr. Distr. Red Sea.

SPOROCHNACEÆ.

SPOROCHNUS PEDUNCULATUS Ag. Bermuda, *Kemp.*
Geogr. Distr. N. Atlantic, North Sea, Mediterranean.

Stilophora Antillarum Crn. Guadeloupe, *Mazé*!

Asperococcus clathratus J. Ag. Guadeloupe, *Mazé*! Danish West Indian Islands, *Hohenack*! Florida, *Harvey*! *Melvill.*

Geogr. Distr. Warm Atlantic, Mediterranean, Red Sea, Indian Ocean, Australia, Pacific.

A. intricatus J. Ag. Guadeloupe, *Mazé*! Vera Cruz, *Liebman.* Florida? *Melvill.*

A. orientalis J. Ag. Guadeloupe, *Mazé*!

Geogr. Distr. Indian Ocean.

A. ramosissimus Zanard. Guadeloupe, *Mazé*!

Geogr. Distr. Mediterranean,

A. Schrammii Crn. Guadeloupe, *Mazé*!

A. sinuosus Roth. Barbadoes, *Dickie*! Vera Cruz, *Liebman.* Florida, *Harvey*, *Melvill*! Bermuda, *Kemp*, *Rein*,' *Challenger.*'

Geogr. Distr. Throughout warm oceans.

Ralfsiaceæ.

Ralfsia expansa J. Ag. Vera Cruz, *Liebman.*

III.—CHLOROPHYCEÆ.

Siphoneæ.

ryopsis ramulosa Mont. Barbadoes, *Dickie*! Cuba, *R. de la Sagra*! Danish West Indian Islands, *Hohenack*! No. 421.

Geogr. Distr. Brazil, Africa (Ile de Gorée).

B. Balbisiana Zan. Guadeloupe, *Mazé*!

Geogr. Distr. Mediterranean and warm coasts of Europe.

B. Harveyana J. Ag. = B. plumosa var. secunda Harv. Florida, *Harvey.*

B. pennata Lam. Guadeloupe, *Mazé*!

Geogr. Distr. Brazil, Ceylon.

B. plumosa Huds. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Cuba, *Wright.* Florida, *Harvey*, *Melvill*! Bermuda, *Kemp*, *Rein.*

Var. ramulosa Harv. Guadeloupe, *Mazé*!

Var. densa Harv. Guadeloupe, *Mazé*!

Geogr. Distr. Atlantic (North and South), Cape of Good Hope, Australia.

B. thuyoides Kütz. Guadeloupe, *Mazé*!

B. foliosa Sond.? Guadeloupe, *Duchassaing* (*fide Agardh*).

Geogr. Distr. Australia.

B. hypnoides Lam. Florida, *Harvey.* Bermuda, *Kemp.*

Geogr. Distr. Mediterranean, and warm shores of Europe.

B. arbuscula Lam. Danish West Indian Islands, *Hohenack*! No. 420.

B. Duchassaingii J. Ag. Guadeloupe, *Mazé*!

B. pennulata Liebm. Guadeloupe, *Mazé*!

B. Leprieurii Kütz. Guadeloupe, *Mazé*!

Derbesia tenuissima J. Ag. = D. marina Sol. excl. syn. Bermuda, *Rein.*

Geogr. Distr. Mediterranean.

D. VAUCHERIÆFORMIS J. Ag. Florida, *Harvey*! *Melvill*? Bermuda, '*Challenger*'!

Geogr. Distr. United States (Atlantic).

CODIUM ADHÆRENS Ag. Guadeloupe, *Mazé*! Bermuda, *Kemp*, '*Challenger*'! omitted from list.

Var. ARABICUM Crn. Guadeloupe, *Mazé*!

Geogr. Distr. Atlantic, Mediterranean, Red Sea and Indian Ocean, Pacific, Australia.

C. BURSA Ag. Bermuda, *Kemp*.

Geogr. Distr. Atlantic (Britain to Spain), Mediterranean.

C. TOMENTOSUM Ag. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Cuba, *Wright*. Florida, *Harvey*! Bermuda, *Kemp*, *Rein*, '*Challenger*'!

Geogr. Distr. General. It should be stated that Agardh (Till. Alg. Syst. viii. p. 40) differs from Harvey and others in regarding specimens from Australia and California as distinct from our *C. tomentosum*. He limits its distribution to the Atlantic from Britain to the Cape, and to the Mediterranean —so far as is known.

C. TENUE Kütz., var. REPENS Crn. Guadeloupe, *Mazé*!

Geogr. Distr. Cape of Good Hope, Australia, Indian Ocean, Red Sea.

C. LINEARE Ag. Guadeloupe, *Duchassaing*. Cuba, *Liebman*.

Geogr. Distr. Warm Atlantic, Australia.

[Mazé et Schramm ('Algues de la Guadeloupe,' p. 108) cite *C. abbreviatum* Ag. In the almost complete set of their Algæ in the British Museum there is unfortunately no specimen under this name. J. G. Agardh (Till. Alg. Syst. viii. p. 48) remarks that he does not know of any *C. abbreviatum* described either by Agardh or by anyone else. I have searched for the origin of the name in vain. It appears to have arisen by "spontaneous generation."]

AVRAINVILLEA NIGRICANS Decne. Barbadoes, *Dickie*! (*Rhipilia Rawsoni* Dickie). Iles des Saintes (Guadeloupe), *Avrainville*! Guadeloupe, *Mazé*! Bermuda, *Farlow*! (*fide Bornet in lit.*). Santa Cruz (*fide Bornet in lit.*).

Geogr. Distr. Brazil.

A. LONGICAULIS G. Murr. et Bood. Antilles, *Sonder*. Grenada, *Murray*! Guadeloupe, *Mazé*! St. Thomas, '*Challenger*'! Bermuda, '*Challenger*,' *Farlow* (*fide Bornet in lit.*).

A. SORDIDA Crn. (excl. syn.). Grenada, *Murray*! Guadeloupe, *Mazé*! Iles des Saintes (Guadeloupe), *Thiebault* (*fide Bornet in lit.*).

A. MAZEI G. Murr. et Bood. Guadeloupe, *Mazé*! Marie Galante (Guadeloupe), *Mazé*!

PENICILLUS DUMETOSUS Decne. Guadeloupe, *Mazé*! St. Thomas, '*Challenger*'! Florida, *Harvey*! *Melvill*. Bermuda, '*Challenger*'!

P. CAPITATUS Lam. Grenada. *Murray*! Guadeloupe, *Mazé*! Cuba, *Wright*. Jamaica, *Sloane*! Florida, *Harvey*! *Melvill*! *Hooper*! (in Farlow, Anderson and Eaton, No. 43). Bermuda, *Rein*, '*Challenger*'! omitted from list.

P. ELONGATUS Decne. Guadeloupe, *Mazé*!
P. LAMOUROUXII Decne. Guadeloupe, *Mazé*!
P. CLAVATUS Crn. Guadeloupe, *Mazé*!
RHIPOCEPHALUS PHŒNIX Kütz. Guadeloupe, *Mazé*! Cuba, *Wright*. Florida, *Harvey*.
Var. ELATIOR Crn. Guadeloupe, *Mazé*!
UDOTEA CONGLUTINATA Lam. Grenada, *Murray*! Guadeloupe, *Mazé*! St. Thomas, '*Challenger*'! Cuba, *Wright*. Florida, *Harvey*, *Melvill*! Bermuda, *Rein*, '*Challenger*.'
U. FLABELLATA Lam. West Indies, *Fleming*! (*Hb. Mus. Brit.*) Grenada, *Murray*! Guadeloupe, *Mazé*! Cuba, *Wright*. St. Thomas, '*Challenger*'! Florida, *Harvey*, *Melvill*! Bermuda, *Rein*, '*Challenger*'! omitted from list.
U. CYATHIFORMIS Decne. St. Thomas, '*Challenger*'!
U. HALIMEDA Kütz. St. Thomas, '*Challenger*'!
Geogr. Distr. Brazil.
U. TOMENTOSA nob. = RHIPILIA TOMENTOSA Kütz. Antilles, *Sonder*!
U.? LUTEOFUSCA nob. = FLABELLARIA LUTEOFUSCA Crn. Guadeloupe, *Mazé*! This very obscure form appears to me to be an imperfect state of an *Udotea*. Agardh, who had not seen a specimen (*loc. cit.* p. 76), says, "An potius *Avrainvilleæ* forma?" It is certainly not an *Avrainvillea*, though it outwardly resembles one.
[Agardh (*loc. cit.* p. 74) records *Udotea Desfontainii* Lam., from Guadeloupe (*Mazé*) on the ground of his placing *Flabellaria fimbriata* Chauv. in Mazé et Schramm Alg. Guad. p. 89, under that species. But Mr. Boodle and I have founded our *Avrainvillea Mazei* on No. 65 of their Algæ—which bears the name of *Flabellaria fimbriata*. There has probably been a mistake in distributing the specimens.]
HALIMEDA TUNA Lam. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Florida, *Harvey*! *Melvill*, *Hooper*! (in Farlow, Anderson and Eaton, No. 41).
Geogr. Distr. Mediterranean.
H. BREVICAULIS Kütz. Bahama (*fide Kützing*).
Geogr. Distr. Indian Ocean.
H. OPUNTIA Lam. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Sisal, *Schott*! Cuba, *Wright*. Jamaica, *Sloane*! St. Thomas, *Mertens*! '*Challenger*'! Danish West Indian Islands, *Hohenack*! No. 414. Tortola, *Cleve*! (in Wittr. et Nordst. Alg. Exsicc. No. 148). Florida, *Harvey*! *Melvill*! *Hooper*! (in Farlow, Anderson and Eaton, No. 40). Bermuda, *Rein*.
Geogr. Distr. In all warm seas.
H. INCRASSATA Lam. Grenada, *Murray*! Guadeloupe, *Duchassaing*, *Mazé*! St. Thomas, '*Challenger*'! Florida, *Harvey*! *Melvill*! Bermuda, *Rein*.
Geogr. Distr. Australia and Pacific.
H. TRIDENS Lam. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Cuba, *Wright*. St. Thomas, '*Challenger*'! Florida, *Harvey*, *Melvill*.
H. CYLINDRACEA Decne. Guadeloupe, *Mazé*!
Geogr. Distr. Madagascar.

H. MONILE Lam. Guadeloupe, *Mazé*! Florida, *Harvey*. Bermuda, '*Challenger*'! omitted from list.

VALONIA VENTRICOSA J. Ag. Grenada, *Murray*! Guadeloupe, *Duchassaing*, *Mazé*! (sub nomine *V. ovalis* Ag.). Santa Cruz, *Oersted*. Bermuda, *Mrs. Whelpdale* (in Herb. Mus. Brit.).

V. UTRICULARIS Ag. Guadeloupe, *Mazé*! (sub nomine *V. syphunculus* Bertol.). Bermuda ((*fide J. G. Agardh*), *Farlow*! (in Farlow, Anderson and Eaton, No. 171).

Geogr. Distr. Mediterranean. [I have very little doubt that the Bermuda form collected by Prof. Farlow is *Valonia ventricosa* J. Ag.]

V. ÆGAGROPHILA Ag. Cuba, *Wright*.

Geogr. Distr. Mediterranean, Indian Ocean, Pacific.

V. VERTICILLATA Kütz. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Santa Cruz (*fide J. G. Agardh*).

V. CONFERVOIDES Harv. Bermuda, *Farlow*.

Geogr. Distr. Indian Ocean, Pacific.

V. CÆSPITULA Zanard. Guadeloupe, *Mazé*!

V. CONFERVACEA Zanard. Guadeloupe, *Mazé*!

Geogr. Distr. Mediterranean.

V. CÆSPITOSA Crn. Guadeloupe, *Mazé*!

V. TENUIS Crn. Guadeloupe, *Mazé*!

V. SUBVERTICILLATA Crn. Guadeloupe, *Mazé*!

ASCOTHAMNION INTRICATUM Kütz. Guadeloupe, *Duchassaing*, *Mazé*! Florida, *Farlow*. Bermuda, *Rein*, *Farlow*.

Geogr. Distr. Mediterranean and neighbouring Atlantic, Indian Ocean, Australia, Pacific.

TRICHOSOLEN ANTILLARUM Mont. Guadeloupe, *Mazé*!

SIPHONOCLADUS TROPICUS J. Ag. (= APJOHNIA TROPICA Crn.). Barbadoes, *Hb. Gray*. Guadeloupe, *Duchassaing*, *Mazé*! Florida, *Mrs. Curtiss*.

Geogr. Distr. Indian Ocean.

STRUVEA RAMOSA Dickie. Bermuda, '*Challenger*'!

Geogr. Distr. Canary Islands.

S. PULCHERRIMA G. Murr. et Bood. (olim *Phyllodictyon*). Gulf of Mexico, *Menzies*! The specimen recorded from Barbadoes by Dickie is a minute fragment of a green alga, which is certainly not *S. pulcherrima*.

S. DELICATULA Kütz. Guadeloupe, *Mazé*!

Var. CARACASANA Grunow. Caracas, *Gollma*!

Geogr. Distr. New Caledonia, Western Australia, and Ceylon.

CHAMÆDORIS ANNULATA Mont. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Martinique, *Duperrey*. Florida, *Harvey*, *Melvill*.

Geogr. Distr. Brazil, Indian Ocean.

DICTYOSPHÆRIA FAVULOSA Decne. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Santa Cruz (*fide J. G. Agardh*). Cuba, *Wright*. St. Thomas, '*Challenger*'! Florida, *Harvey*! *Melvill*! Bermuda (*fide J. G. Agardh*).

Geogr. Distr. Red Sea, Indian Ocean, Australia, Pacific.

D. VALONIOIDES Zanard. Guadeloupe, *Mazé*!

Geogr. Distr. Mediterranean.

Anadyomene stellata Ag. West Indies, *Hb. Landsborough*! (in Glasg. Univ.). Barbadoes, *Dickie*! omitted from list; *Hb. Brodie*! (in Glasg. Univ.). Guadeloupe, *Duchassaing*, *Mazé*! Santa Cruz, *Oersted*. Cuba, *R. de la Sagra*. St. Thomas, '*Challenger*'! Florida, *Harvey*! *Melvill*. Bermuda, *Kemp*, *Rein*, '*Challenger*'! *Farlow*! (in Farlow, Anderson & Eaton, No. 172).

Geogr. Distr. Mediterranean, Brazil.

A. Menziesii Harv. = Grayemma Menziesii Gray. Gulf of Mexico, *Menzies*! (in Herb. Mus. Brit.).

Caulerpa fastigiata Mont. Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*!

Var. confervoides Crn. Guadeloupe, *Mazé*!

Geogr. Distr. Brazil, Friendly Islands.

C. pusilla Mart. et Hering. Guadeloupe, *Mazé*!

C. verticillata J. Ag. Gulf of Mexico, *Liebman*. West Indies, *Duchassaing*, *Oersted* (*fide J. G. Agardh*).

Geogr. Distr. Friendly Islands.

C. Webbiana Mont. Guadeloupe, *Mazé*!

Geogr. Distr. Canary Islands, Pacific.

C. prolifera Lam. Guadeloupe, *Mazé*! Progreso, *Schott*! Cuba, *Wright*.* Florida, *Harvey*, *Melvill*. Bermuda, *Kemp*, *Rein*.

Var. firma Kütz. Guadeloupe, *Mazé*!

Geogr. Distr. Warm Atlantic and Mediterranean.

C. crassifolia Ag., var. Mexicana. Guadeloupe, *Mazé*! Cuba, *Wright*. Mexico, *Binder*. St. Thomas, '*Challenger*'! Florida, *Harvey*, *Melvill*! Bermuda, *Rein*, '*Challenger*'! *Farlow*! (in Farlow, Anderson and Eaton, No. 170).

Geogr. Distr. Brazil.

C. taxifolia Ag. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Jamaica, *Chitty*! Santa Cruz, *Miss Dix*! West Indies, *Hb. Wallroth*!

Geogr. Distr. Pacific, Australia, Indian Ocean.

C. pectinata Kütz. La Guayra (*fide Kützing*). Guadeloupe, *Mazé*!

C. plumaris Ag. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Florida, *Harvey*, *Melvill*! Bermuda, *Kemp*, *Rein*, *Hb. Glasg. Univ.*! *Farlow*! (in Farlow, Anderson and Eaton, No. 169).

Var. elegans. Guadeloupe, *Mazé*!

Geogr. Distr. Tropical seas.

C. Ashmeadii Harv. Yucatan, *Schott*! St. Thomas, '*Challenger*'! Florida, *Harvey*, *Melvill*! *Hooper*! (in Farlow, Anderson and Eaton, No. 36.

C. Freycinetii Ag. Grenada, *Murray*! Guadeloupe, *Mazé*!

Geogr. Distr. Red Sea and Indian Ocean, Pacific, Australia.

C. ericifolia Ag. Guadeloupe, *Mazé*! Martinique, *Hb. Brongniart*! (in Glasg. Univ. Herb.). Florida, *Farlow*! (in Farlow, Anderson and Eaton, No. 96).

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* Prof. Farlow, in his paper on Cuban Sea-weeds ('American Naturalist,' vol. v., p. 201), leaves it in some uncertainty which species of *Caulerpa* and of *Udotea* are mentioned as having been collected by Mr. Charles Wright—and which are cited for the purpose of illustrating their structure.

C. CUPRESSOIDES Ag. Guadeloupe, *Mazé*! Jamaica, *Chitty*! St. Thomas, '*Challenger*'! *Hb. Wallroth*! Florida, *Harvey*, *Melvill*!

Var. ALTERNIFOLIA Crn. Guadeloupe, *Mazé*!

C. DISTICHOPHYLLA Sond. Guadeloupe, *Mazé*!

Geogr. Distr. Western Australia.

C. SELAGO Ag. Grenada, *Murray*! Barbadoes, *Dickie*! (omitted from his list). Guadeloupe, *Mazé*!

Geogr. Distr. Red Sea.

C. LYCOPODIUM J. Ag. Martinique, *Duperrey*.

Geogr. Distr. Brazil.

C. LANUGINOSA J. Ag. = C. LYCOPODIUM Harv. Florida, *Harvey Melvill*! *Hooper*! (in Farlow, Anderson and Eaton, No. 37).

C. PASPALOIDES Grev. Florida, *Harvey*, *Hooper*! (in Farlow, Anderson and Eaton, No. 38).

Geogr. Distr. Brazil, Pacific (Valparaiso).

C. CYLINDRACEA Sond.? Barbadoes, *Dickie*!

Geogr. Distr. Australia, Indian Ocean.

C. CLAVIFERA Ag. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Cuba, *Wright*. St. Thomas, *Hb. Wallroth*! *Hohenack*! Florida, *Harvey*, *Melvill*, *Hooper*! (in Farlow, Anderson and Eaton, No. 39). Bermuda, *Rein*, '*Challenger*'!

Var. CONDENSATA Crn. Guadeloupe, *Mazé*!

Var. UVIFERA Ag. Guadeloupe, *Mazé*!

Geogr. Distr. Tropical seas.

C. CHEMNITZIA J. Ag., var. OCCIDENTALIS. Gulf of Mexico (*fide J. G. Agardh*).

Geogr. Distr. Brazil. The typical form of this species occurs in the Red Sea and Indian Ocean.

C. SEDOIDES Ag. Grenada, *Murray*! Guadeloupe, *Mazé*!

Geogr. Distr. Australia and Pacific.

C. TRIANGULARIS Crn. Guadeloupe, *Mazé*!

C. INDICA Sond. Guadeloupe, *Mazé*!

Geogr. Distr. Indian Ocean.

DASYCLADUS CLAVÆFORMIS Ag. Cuba, *Wright*. Florida, *Farlow*.

Geogr. Distr. Madeira and Canaries, Mediterranean.

BOTRYOPHORA OCCIDENTALIS J. Ag. = DASYCLADUS OCCIDENTALIS Harv. and D. CONQUERANTII Crn. Guadeloupe, *Mazé*! Florida, *Harvey*, *Melvill*! *Hooper*! (in Farlow, Anderson and Eaton, No. 97). Santa Cruz, *Oersted*. Bahama, *Swainson*. Bermuda, *Rein*.

CYMOPOLIA BARBATA Lam. Jamaica, *Sloane*! *Hb. Mus. Brit.*! (no collector's name). San Domingo and Cuba (*fide J. G. Agardh*). Florida, *Harvey*! *Melvill*. Bermuda, *Rein*.

Geogr. Distr. Canary Islands and Cadiz.

C. MEXICANA J. Ag. Vera Cruz, *Liebman*.

NEOMERIS DUMETOSA Lam. West Indies, *Richard*. Cuba, *Wright*.

Geogr. Distr. Pacific.

ACETABULARIA CARIBICA Kütz. West Indies (*fide Kützing*).

Geogr. Distr. Pacific (Friendly Islands).

A. CRENULATA Lam. Guadeloupe, *Duchassaing*, *Mazé*! Cuba, *Wright*. Florida, *Harvey*, *Melvill*, *Hooper*! (in Farlow, Anderson and Eaton, No. 42). Bermuda, *Kemp*, *Rein*.
A. POLYPHYSOIDES Crn. Guadeloupe, *Mazé*!

CONFERVEÆ.

CHÆTOMORPHA TORTUOSA Kütz. Barbadoes, *Dickie*! Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic (Europe), Mediterranean, United States.
C. IMPLEXA Kütz. Guadeloupe, *Mazé*!
Var. MONTAGNEANA Kütz. Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*.
Geogr. Distr. N. Atlantic and Mediterranean.
C. JAVANICA Kütz., f. TENUIS Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Java.
C. GRACILIS Kütz. Guadeloupe, *Mazé*!
Var. TENUIOR Crn. Guadeloupe, *Mazé*!
Geogr. Distr. N. Atlantic and Mediterranean.
C. LINOIDES Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Atlantic and Pacific.
C. CHLOROTICA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
C. LINUM Kütz. Cuba, *R. de la Sagra*.
Geogr. Distr. North Sea and Atlantic.
C. DUBYANA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Southern shores of France.
C. VASTA Kütz. Guadeloupe, *Mazé*!
Var. INFLATA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
C. AEREA Kütz. Barbadoes, *Dickie*! Bermuda, '*Challenger*'!
Geogr. Distr. Mediterranean, Atlantic shores of Europe, Canaries, United States, Australia.
C. BILLARDIERII Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Australia.
C. PACHYNEMA Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Canary Islands.
C. ANTENNINA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Indian Ocean and S. Pacific.
C. MEDIA Kütz. Guadeloupe, *Mazé*!
C. INTESTINALIS Kütz. Guadeloupe, *Mazé*!
C. BRACHYGONA Harv. Florida, *Harvey*, *Melvill*. Mouth of the Rio Bravo, *Schott*.
C. GENICULATA Mont. Guadeloupe, *Mazé*! Bermuda, *Rein*.
Geogr. Distr. Cayenne.
C. BREVIARTICULATA Zanard. Guadeloupe, *Mazé*!
C. SUBMARINA Crn. Guadeloupe, *Mazé*!
C. LANOSA Crn. Guadeloupe, *Mazé*!
C. TENUISSIMA Crn. Guadeloupe, *Mazé*!
RHIZOCLONIUM ANTILLARUM Kütz. Cuba, *R. de la Sagra*.
R. SUBRAMOSUM Crn. Guadeloupe, *Mazé*!

R. SARGASSICOLUM Crn. Guadeloupe, *Mazé*!
f. TENUIS Crn. Guadeloupe, *Mazé*!
f. SPIRALIS Crn. Guadeloupe, *Mazé*!
HORMOTRICHUM BERMUDIANUM Harv. Bermuda, *Rein.*
CLADOPHORA HOSPITA Kütz., var. NUDA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
C. COMOSA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. North Sea.
C. PROLIFERA Kütz. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Bermuda, '*Challenger.*'
Geogr. Distr. Mediterranean.
C. PELLUCIDA Kütz. Bermuda, *Kemp.*
Geogr. Distr. N. Atlantic and Mediterranean.
C. ALYSSOIDEA Menegh. Guadeloupe, *Mazé*!
Var. GRACILLIMA Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
C. MAGALLANA Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Britain.
C. FASCICULARIS Kütz. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Cuba, *R. de la Sagra.*
f. DENUDATA Crn. Guadeloupe, *Mazé*!
f. GLOMERATA Crn. Guadeloupe, *Mazé*!
C. FASCICULARIOIDES Crn. Guadeloupe, *Mazé*!
C. OVOIDEA Kütz. Guadeloupe, *Mazé*!
f. CRASSICAULIS Crn. Guadeloupe, *Mazé*!
Geogr. Distr. North Sea.
C. LAXA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
C. ANISOGONA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Toud Island.
C. ECKLONI Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
C. SERTULARINA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Cayenne.
C. MAURITIANA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Indian Ocean.
C. LÆTEVIRENS Kütz. Bermuda, *Rein.*
Geogr. Distr. North Sea.
C. ALBIDA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Britain.
C. CRYSTALLINA Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. North Sea, N. Atlantic, and Mediterranean.
C. FLAVESCENS Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. North Sea and N. Atlantic.
C. LUTESCENS Harv. Bermuda, *Rein.*
Var. LONGIARTICULATA. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
C. GRACILIS Kütz. Guadeloupe, *Mazé*! Bermuda, *Kemp.*
Geogr. Distr. North Sea and N. Atlantic.
C. GLAUCESCENS Griff. Bermuda, *Rein.*
Geogr. Distr. North Sea and N. Atlantic.

C. Rudolphiana Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean and N. Atlantic.
C. Ruchingeri Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
C. Tranquebarensis Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Indian Ocean.
C. trichotoma Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. North Sea.
C. membranacea Kütz. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Santa Cruz (*fide Kützing*). Florida, *Harvey*, *Melvill*! Bermuda, *Rein*.
Var. cæspitosa Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Teneriffe.
C. composita Hook. et. Harv. Guadeloupe, *Mazé*!
Geogr. Distr. Indian Ocean.
C. enormis Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Canary Islands.
C. repens Kütz. Grenada, *Murray*! Guadeloupe, *Mazé*! Florida, *Harvey*, *Melvill*!
Geogr. Distr. Mediterranean.
C. socialis Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Pacific.
C. Trinitatis Kütz. Trinidad (*fide Kützing*).
C. stricta Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. North Sea.
C. hormocladia Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. N. Atlantic.
C. crassicaulis Crn. Guadeloupe, *Mazé*!
C. charoides Chauv. Guadeloupe, *Mazé*!
C. bryoides Kütz. Guadeloupe, *Mazé*!
C. conferta Crn. Guadeloupe, *Mazé*!
C. dichotomo-divaricata Crn. Guadeloupe, *Mazé*.
C. zostericola Crn. Guadeloupe, *Mazé*!
C. obtusata Zanard. Guadeloupe, *Mazé*!
C. submarina Crn. Guadeloupe, *Mazé*!
C. delicatula Mont.? Guadeloupe, *Mazé*!
Geogr. Distr. Cayenne.
C. crucigera Grunow. Guadeloupe, *Duchassaing*, *Mazé*!
C. luteola Harv. Cuba, *Wright*. Florida, *Harvey*. Bermuda, *Rein*, '*Challenger*'!
C. Crouanii nob. = C. luteola Crn. Guadeloupe, *Mazé*! The specific name *luteola* is already used by Harvey.
C. catenatoides Crn. Guadeloupe, *Mazé*!
C. glebifera Kütz., var. occidentalis Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
C. mexica Crn. Guadeloupe, *Mazé*!
C. Brasiliana Mart. Guadeloupe, *Mazé*!
Geogr. Distr. Brazil.
C. gracillima Crn. (non Kütz.). Guadeloupe, *Mazé*!
C. virgatula Grunow. Guadeloupe, *Duchassaing*, *Mazé*!
C. subtilis Kütz. Guadeloupe, *Mazé*!

[Kützing places under *Cladophora*, among *species inquirendæ*, the *Conferva bicolor* Mert. et Swartz, from Jamaica (*Swartz*), but remarks, "forte non hujus generis." It is also recorded from Guadeloupe by *Mazé*!]

Ulveæ.

Enteromorpha intestinalis Lk. Grenada, *Murray*! Guadeloupe, *Mazé*!

Geogr. Distr. Atlantic and Mediterranean.

E. Linza J. Ag. Bermuda, *Kemp*, *Rein*.

Geogr. Distr. N. Atlantic (Tasmania ?).

E. compressa Grev. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Florida, *Melvill*! (Harvey gives its distribution for N. America as general). Bermuda, *Rein*, '*Challenger*.'

Geogr. Distr. General.

E. marginata J. Ag. Guadeloupe, *Mazé*!

Var. longior Kütz. Guadeloupe, *Mazé*!

Geogr. Distr. Mediterranean.

E. percursa J. Ag. Guadeloupe, *Mazé*! Bermuda, *Rein*.

Geogr. Distr. Atlantic, Mediterranean, North Sea.

E. clathrata J. Ag. Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*. Bermuda, *Kemp*.

Var. confervoidea. Cuba, *R. de la Sagra*.

Geogr. Distr. N. Atlantic, North Sea, Tasmania, and New Zealand.

E. complanata Kütz. Guadeloupe, *Mazé*!

Var. crinita Kütz. Guadeloupe, *Mazé*!

Var. confervacea Kütz. Guadeloupe, *Mazé*!

E. contorta Crn. Guadeloupe, *Mazé*!

Ulva latissima L. Grenada, *Murray*! Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Bermuda, *Kemp*, *Rein*, '*Challenger*' omitted from list.

Var. lobata Crn. Guadeloupe, *Mazé*!

Geogr. Distr. N. Atlantic, North Sea, Mediterranean.

U. lætevirens Aresch. Guadeloupe, *Mazé*!

Geogr. Distr. Australia.

U. rigida Ag. Grenada, *Murray*! Guadeloupe, *Mazé*! Cuba, *R. de la Sagra*. Indianola (Texas), *Schott*. Bermuda, *Kemp*, *Rein*.

Geogr. Distr. General in warm seas.

U. fasciata Delile. Barbadoes, *Dickie*! Guadeloupe, *Mazé*! Gulf of Mexico, *Schott*.

Geogr. Distr. General in warm seas.

U. lobata Crn. Guadeloupe, *Mazé*!

Phycoseris Belangeri Mont. Martinique, *Belanger*.

Monostroma orbiculatum Thuret. Bermuda, *Farlow*! (in Farlow, Anderson and Eaton, No. 173).

IV.—PROTOPHYCEÆ.

Schizosiphon pilosus Crn. = Calothrix pilosa Harv. Guadeloupe, *Mazé*! Florida, *Harvey*, *Melvill.*
Calothrix submarina Crn. Guadeloupe, *Mazé*!
C. dura Harv. Florida, *Harvey.*
Scytonema submarinum Crn. Guadeloupe, *Mazé*!
S. coactile Mont. In mari Antillarum, *Perrottet.*
Mastichonema Sargassi Crn. Guadeloupe, *Mazé*!
Lyngbya nemalionis Zan., var. flaccida Rabenh. Guadeloupe, *Mazé*!
L. Dalmatica Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
L. schowiana Kütz. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean and North Sea.
L. luteo-fusca J. Ag. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
L. crispa Ag. Guadeloupe, *Mazé*!
Geogr. Distr. All European shores.
L. majuscula Harv. Grenada, *Murray*! Guadeloupe, *Mazé*! Florida, *Harvey.* Bermuda, *Rein*, '*Challenger*'! omitted from list.
Geogr. Distr. European shores.
L. erosa Liebm. Guadeloupe, *Mazé*! Gulf of Mexico, *Liebman.*
L. anguina Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Toud Island.
L. major Kütz. Guadeloupe, *Mazé*!
Var. crassa Crn. Guadeloupe, *Mazé*!
Geogr. Distr. Mediterranean.
L. fluitans Hering. Guadeloupe, *Mazé*!
Geogr. Distr. Cape of Good Hope.
L. cantharidosma Mont. Guadeloupe, *Mazé*!
Geogr. Distr. Canary Islands.
L. hyalina Harv. Florida, *Harvey.*
L. æstuarii Aresch. Guadeloupe, *Mazé*!
Geogr. Distr. United States.
L. rigidissima Zan. Guadeloupe, *Mazé*!
L. maxima Mont. Guadeloupe, *Mazé*!
L. gracilis Menegh. Guadeloupe, *Mazé*!
L. violacea Menegh. Guadeloupe, *Mazé*!
L. cæruleo-violacea Crn. Guadeloupe, *Mazé*!
L. sordida Crn. Guadeloupe, *Mazé*!
L. compacta Crn. Guadeloupe, *Mazé*!
L. mucosa Crn. Guadeloupe, *Mazé*!
L. littoralis Crn. Guadeloupe, *Mazé*!
L. bostrychicola Crn. Guadeloupe, *Mazé*!
L. cyanea Crn. Guadeloupe, *Mazé*!
L. latilimba Crn. Guadeloupe, *Mazé*!
L. agglutinata Crn. Guadeloupe, *Mazé*!
Microcoleus oligothrix Crn. Guadeloupe, *Mazé*! (brackish water).
M. corymbosus Harv. Florida, *Harvey.*

Chthonoblastus Lyngyei Kütz. = Microcoleus maritimus Bory.
Cuba, *R. de la Sagra.*
Geogr. Distr. N. Atlantic.
Oscillaria miniata Crn. Guadeloupe, *Mazé.*
O. fusco-rubra Crn. Guadeloupe, *Mazé*!
O. corallicola Crn. Guadaloupe, *Mazé*!
O. hydrurimorpha Crn. Guadeloupe, *Mazé*!
O. cærulescens Crn. Guadeloupe, *Mazé*!
O. symplocarioides Crn. Guadeloupe, *Mazé*!
O. glutinosa A. Br. Guadeloupe, *Mazé.*
O. stragulum Rabenh. Guadeloupe, *Mazé*!
Sphærozyga microcoleiformis Crn. Guadeloupe, *Mazé*!
Oncobyrsa Guadelupensis Crn. Guadeloupe, *Mazé*!

Geographical Distribution.

I have constructed the following tables in illustration of the distribution of the Algæ occurring in the West Indian Region, since this form of statement is at once shorter and clearer than any other I could devise. The information thus conveyed will doubtless interest the reader more than any part of the present Catalogue, as it has so interested me in the making of it. It should be explained that, to ensure accuracy, I have revised the statements of the geographical distribution given under the species, with the result that in some cases this distribution appears to be wider, while in others I have found reason to doubt the statements of others and of myself, adopted in the paper, which assign a wider field of occurrence to these forms. The difficulty of giving an absolutely accurate rendering of the case is very great, owing to the much-scattered sources of information on the distribution of Algæ, and I have in all cases of doubt preferred to under-estimate the range of a species. While there are errors in the tables beyond all question, I may claim to have striven to reduce these to the lowest limit, and the work of doing this, of tracing particular forms into the different regions of distribution, and the labour of consulting the chaotic literature of distribution, must be my excuse, if such errors be deemed by any one to be unwarrantable. I hope I shall not be considered to be taking credit to myself in stating the matter thus, but that it will be understood as part of an apology.

FLORIDEÆ.	West Indies.	Recorded from West Indies only.	WEST INDIAN SPECIES COMMON TO							
			N. Atlantic.	Mediterranean.	Warm Atlantic.	S. Atlantic and Cape of Good Hope.	Indian Ocean	Australia and S. Pacific.	Warm Pacific	N. Pacific and China Seas.
Ceramieæ	44	17	15	15	8	5	2	9	4	5
Cryptonemiaceæ	29	10	10	6	7	3	2	3	1	0
Gigartineæ	22	5	8	4	2	3	2	2	3	1
Spyridieæ	6	0	2	2	3	1	3	2	1	1
Areschougiæ	1	0	0	0	0	0	0	0	1	0
Champieæ	6	2	2	2	1	0	0	2	2	0
Rhodymeniaceæ	20	14	3	2	1 [?]	0	0	3	1 [?]	1
Squamarieæ	1	0	1	1	0	0	0	0	0	0
Porphyraceæ	6	3	2	2	0	0	0	0	0	1
Sphærococcoideæ	67	47	8	7	10	2	6	5	2	2
Helminthocladiaceæ	40	22	2	5	10	1 [?]	8	6	4	0
Chætangieæ	2	1	0	0	1	0	1	1	0	0
Gelidieæ	13	8	2	2	2	4	4	3	2	2
Hypneaceæ	21	11	0	2	2	4	6	1	3	1
Solieriеæ	12	6	2	1	1	1	3	2	1	1 [?]
Wrangelieæ	2	1	1	1	1	0	0	1 [?]	0	0
Chondrieæ	24	9	6	4	7	5	5	7	3	2
Rhodomeleæ	91	39	20	18	18	6	6	12	4	2
Corallineæ	37	9	8	13	9	8	6	10	4	3
	444	204	92	87	83	43	54	69	36	22

II.

PHÆOPHYCEÆ.	West Indies.	Recorded from West Indies only.	WEST INDIAN SPECIES COMMON TO							
			N. Atlantic.	Mediterranean.	Warm Atlantic.	S. Atlantic and Cape of Good Hope.	Indian Ocean	Australia and S. Pacific.	Warm Pacific	N. Pacific and China Seas.
Fucaceæ	33	10	6	5	13	3	7	3	4	1
Dictyotaceæ	44	11	7	8	14	7	7	9	7	4
Ectocarpaceæ	13	11	2	1	1	1	0	1	0	0
Sphacelariaceæ	2	0	1	1	1	0	1	1	0	0
Chordariaceæ	8	0	5	4	1	1	0	1	0	0
Punctariaceæ	1	0	1	0	0	0	0	0	0	0
Arthrocladiaceæ	2	0	0	0	1	0	1	0	1	0
Sporochnaceæ	8	3	2	4	2	1	3	2	2	2 [?]
Ralfsiaceæ	1	1	0	0	0	0	0	0	0	0
	112	36	24	23	33	13	19	17	14	7

III.

CHLOROPHYCEÆ.	West Indies.	Recorded from West Indies only.	WEST INDIAN SPECIES COMMON TO							
			N. Atlantic.	Mediterranean.	Warm Atlantic.	S. Atlantic and Cape of Good Hope.	Indian Ocean	Australia and S. Pacific.	Warm Pacific	N. Pacific and China Seas.
Siphoneæ	95	39	8	19	29	8	22	18	20	2
Conferveæ	77	29	16	17	10	4	5	5	2	0
Ulveæ	15	5	7	8	5	4	3	6	3	2
	187	73	31	44	44	16	30	29	25	4

IV.

PROTOPHYCEÆ.....	45	34	5	6	1	1	0	1	0	0

V.

TOTALS.										
Florideæ	444	204	92	87	83	43	54	69	36	22
Phæophyceæ	112	36	24	23	33	13	19	17	14	7
Chlorophyceæ	187	73	31	44	44	16	30	29	25	4
Protophyceæ	45	34	5	6	1	1	0	1	0	0
	788	347	152	160	161	73	103	116	75	33

I venture to think that the conclusion is obvious enough, from the foregoing tables, that the West Indian Region is a natural one. At the beginning of the work the inclusion of Bermuda in the region seemed to rest on doubtful grounds, but on the whole, these doubts, such as they were, have been removed during its progress. The occurrence on that island of two species of *Fucus*, for example, *viz.*, *F. ceranoides* L. and *F. distichus* L., certainly makes one pause, but a consideration of the whole of the list containing many examples of peculiar West Indian forms outweighs this evidence of a northern flora—and we may safely regard Bermuda as no longer "vexed," but well established as the northern limit down the Gulf Stream of this region. The other difficulty in delimiting the frontier of the West Indian Region has been the wide question of how far it is worth while separating it from the warm Atlantic region. It will be seen that the latter exceeds by only one the total for the Mediterranean of West Indian forms common to the regions in question—but it must not be forgotten that the Mediterranean not only offers a long coast-line, but it has been far better explored for Algæ than the coast-lines of the warm Atlantic region. Compare our knowledge of the Algæ of the Adriatic or of the Bay of Naples with our poor records from Brazil or the West African coast! The proportion of warm Atlantic forms occurring in the West Indies (to put the case from the other point of view)—I mean the proportion to the whole known marine flora is far greater than the proportion of Mediterranean forms so occurring. While therefore maintaining the West Indian region for the present, I should offer no serious opposition to its being engulphed in the warm Atlantic region if it be considered desirable to deal with regions of larger area.

The total of species common to the Cape may cause some surprise as to its smallness compared with Australia. This, I take it, is to be accounted for by the two facts that Australia has been ascertained to have a very large and varied marine flora, and that this flora has been so thoroughly studied from the systematic point of view. From Australia and the S. Pacific, I should explain that I exclude North Australia. The material from Torres Straits, which is about all we know of it, shows a greater relationship with Indian Ocean and warm Pacific forms than with East, South, or West Australian forms. The smaller totals from warm Pacific and North Pacific are to be accounted for by the poverty of our knowledge of these regions.

The total from the Indian Ocean is at first sight most surprising of all—in its being smaller than the Australian total. I have included in this Indian Ocean region, the Red Sea, and islands, &c., as far south as Mauritius, and as far east as Singapore. Granted that the Australian marine flora is well known, it must also be urged that the Indian Ocean as thus delimited has been by no means neglected. Allowing that, of the two regions, Australia is the better known, even then the result is surprising when we consider the similarity of the physical conditions occurring in the Indian Ocean and West Indian regions—and the enormous extent

of the Indian Ocean region, compared with the coast-lines of Eastern, Southern, and Western Australia, and the S. Pacific islands. If we trace the Gulf Stream and the Equatorial current to its source, we travel up-stream round the Cape of Good Hope, and arrive at the coast of Western Australia. Is this great current to be admitted as a factor in solving the problem? Against it one may hear urged that the Cape total is lower than the Australian, but against this objection is the further fact of the small coast-line of the Cape.

However this may be, the Indian Ocean region has, both relatively to Australia and relatively to its total flora, surprisingly little in common with the West Indies as regards *species*. If we take the *genera*, which are either confined to the tropics or are almost exclusively represented in the tropics, we shall find, speaking broadly, that the genera of marine Algæ are the same in the East Indies as in the West, while the species are in a very high proportion different. When we regard these regions shut in by continental areas, and not much less effectively by areas of low temperature in the ocean, there is a strong temptation to rush at once to a conclusion that the tropical genera of Algæ are thus proved to be of immense antiquity, while the species are comparatively recent. However convenient such a conclusion might be, it would be rash to assume its truth on this evidence alone. When these oceans have been more thoroughly explored, and their forms more critically studied, it will be time to debate the question. But the evidence is strong enough at present to warrant our briefly considering its position. Admitting the enormous antiquity, in a geological sense, of the continental areas—their "permanence," as one writer puts it—as beyond question an insuperable barrier to the mingling of tropical marine forms, we may yet ask, Does this hold good of the ocean temperatures? The changes and variations of climate in the northern and southern hemispheres are admitted by all to have been both far-reaching and of great duration. It is also generally admitted that an important agent in determining such variations of climate, or, at all events, a constant accompaniment of such, has been change of direction of the great ocean currents. Let us suppose in the past—a past by no means so remote as the age of continents—a more genial climate in the southern hemisphere, and we at once obtain conditions suitable for the migration and mingling of the marine forms of tropical oceans by way of the Cape of Good Hope. It will be seen that this reduces to (in geological sense) comparatively modern times the latest age during which continental areas formed no insuperable barrier between tropical seas. It may now be said that this argument tends to bring the age of the tropical *species* down to comparatively recent times. It may bear that interpretation to those who choose to make it, but I would emphatically point out that it by no means forces us to make it. I have dwelt at this length on this aspect of the question because it appears to me that we have here one of the most interesting points in the distribution of plants, and one on which further labour may be hopefully expended. I

hope to follow up at an early date this West Indian Catalogue with one of the Marine Algæ of the Indian Ocean, towards which I have already amassed much material, and made numerous determinations.

Finally, to return to the West Indian Region proper, I would venture to point out that the 347 species recorded as peculiar to the West Indian marine algal flora, out of a total of 788 species composing the flora, is hardly a proportion that will stand. The advance of knowledge will doubtless lead to their distribution being extended, and it may be anticipated that this will be more the case than the discovery of new species within the region itself. Still it must be admitted that there are great portions of the region that have never been explored by the collector of Algæ, and outside the Islands we know hardly anything. The coast of the Gulf of Mexico has been ascertained to be barren, but the whole of the north coast of South America is absolutely a blank, but for a few species from La Guayra, and it may well repay examination.

Appended is a list of authorities geographically arranged:—

Venezuela (La Guayra).—*Liebman.* Quoted in Kützing's 'Species Algarum,' and in Harvey, Nereis Bor. Amer.

Grenada.—*Murray*, in Herb. Mus. Brit.

Barbadoes.—*Dickie*, in Linn. Soc. Journ. (Bot.), xiv.

Martinique.—*Montagne*, Plantes Cell. Nouv. Cent. III.: Ann. Sci. Nat., Ser. ii., Tom. xviii.

Guadeloupe.—*Mazé et Schramm*, 'Essai de Classification des Algues de la Guadeloupe.'

St. Thomas.—'*Challenger*' list in Linn. Soc. Journ. (Bot.), xiv.

St. Thomas and other Danish West Indian Islands.—*Hohenack*, 'Meeralgen.'

St. Croix.—*Miss Dix.* Quoted in Harvey, *loc. cit.*

Jamaica.—*Sir Hans Sloane*, in Herb. Mus. Brit. *Chitty*, in Herb. Mus. Brit.

Cuba.—*Ramon de la Sagra*, Hist. Nat. de Cuba (*Montagne*); Algæ Wrightianæ. *Farlow*, in 'American Naturalist' (Cuban Sea Weeds), vol. v. 1871.

Vera Cruz.—*Liebman.* Quoted as above.

Yucatan.—*Schott*, in Herb. Mus. Brit.

Florida.—*Harvey*, Nereis, Bor. Amer. *Melvill*, Journ. Bot. 1875. *Farlow, Anderson & Eaton*, Alg. Exsicc. Amer. Bor. See also Farlow's List of Algæ in United States Fish. Commission Report, 1873–74 and 1874–75 (published in 1876).

Bahamas.—*Ellis & Solander.* Also some material (not much) by various collectors in Herb. Mus. Brit.

Bermuda.—*Kemp*, 'Canadian Naturalist,' vol. ii. 1857. *Rein*, Bericht über d. Senckenberg. Gesellsch. 1872–73, p. 151. '*Challenger*' list in Linn. Soc. Journ. (Bot.), xiv. *Farlow, Anderson & Eaton*, Alg. Exsicc. Amer. Bor.

ADDENDA, &c.

Page 2, line 14 from top, after "proportion," add "of individuals."

Page 4, line 22, "Ipse," unidentified, has been recognised as Hohenacker.

Page 5, line 6 from bottom, between "Havana" and "*Melvill*!," insert "*R. de la Sagra*."

Page 6, to "Cystoclonium," add "C. purpurascens. Cuba, *R. de la Sagra*."

Page 8, to "Bangia," add "B. dispersa Mont. Martinique, *Belanger*." To "Porphyra," add "P. vexillaris Mont. Martinique, *Belanger*." To "Gracilaria," add "G. multipartita. Havana, *R. de la Sagra*."

Page 13, under "Hypnea musciformis Lam.," before Jamaica, insert "Nevis, *Menzies*!" and after Jamaica add "*Wright*!"

Page 14, to "Hypnea spinella J. Ag.," add "Florida, *Hooper*! in Farlow, Anderson & Eaton, No. 145." To "H. secundiramea Mont.," add "St. Thomas, *Mertens*!" To "Eucheuma isiforme Ag.," add "Yucatan, *Schott*!"

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2 a

2 b

1 b

1 a

Morgan del et lith

Wes, Newman imp

Chondriopsis enicophylla *Melv.*, *sp n*
leptacremon " " "

H. Morgan del et lith.

West Newman & Co. imp.

1-5. Avrainvillea longicaulis: *G.Murr et Bood.*

6. " Mazei *G.Murr et Bood.*